construction of a gas well or a group of gas wells, I can give you the answer to that.

Q. I used the term "Annual depreciation"; I suppose you consider that as another name for amortization in this particular case?

A. Yes, annual depreciation charge.

5404

[fol. 2291] Q. Yes, so we understand each other.

A. Yes.

Q. Go ahead.

A. In that case, it is not the case which is practiced by any gas company, but theoretically, you would determine throughout the operations of the company what the average of gas wells is that are abandoned and an amount of money should be set up each year from the revenues based upon the average age of the abandoned wells.

Q. In other words, if the past history shows that wells died at an average age of 15 years——

A. 15 years?

Q. 15 years, we will say. I am just taking an assumed case. If that were so and you had a well five years old, you would assume it had ten years more of life?

A. On the average, yes.

Q. Yes, I am talking about average.

A. Yes.

Q. But that isn't quite fair, is it? You have got to exhaust a pool or field and get the complete history before the past deaths will give you the fair average? Your short lived wells naturally go out first, don't they?

A. Yes, that is obvious.

Q. Yes. And wouldn't that mean that the final average would be greater than that partial past history?

A. I don't see the connection. We were talking about the average age of the wells. Now, you are asking about the short-lived wells. I don't quite see the point of your question.

Q. Well, you told me, Mr. Weymouth, that you would first discover the average death age of the wells as shown by past history?

A. Yes.

Q. And then use that in estimating the remaining life of the wells that were still in operation?

5405

[fol. 2292] A. Oh, no, no, that is not what I said.

Q. Well, all right.

A. Let's go on with the illustration you started and probably I can make it clear.

Q. Well, you tell me what you said.

A. I can explain it more clearly by using the illustration which you assumed.

Q. All right.

A. Assuming that the average age of our abandoned wells is 15 years, and that then if we should accumulate our depreciation reserve on a straight-line basis, we would set up each year a little less than 7 per cent of the value of the wells out of reserve to accumulate the hundred per cent at the end of the 15 year average age. In other words, if the average had lived five years, you would have accumulated five times six and two-thirds per cent or about 33 per cent, 33-1/3 per cent of the depreciation reserve which will be necessary at the end of the 15 year period to replace the wells in question.

Q. Well then, am I not justified, Mr. Weymouth, in saying that under that theory, and I am not quarreling with the theory at this moment, that the wells that are in operation would have, for average life, of course, the difference between the present age and 15?

A. You are speaking now of this same group of wells which you are segregating?

Q. Yes.

A. Yes, their average remaining life of this group of wells would in the case you assume, be ten years.

Q. Well, don't you know that coming back to what I started a moment ago, don't you know that there is a factor of correction in that because all of you gas engineers recognize that that is somewhat distorted by the fact that your poor wells go out first, and that it has a peculiar influence upon your average?

5406

[fol. 2293] A. No, that fact would be accounted for in determining the average that you speak about.

5410

[fol. 2294] Q. Have you read Lerch's testimony in the United Case?

A. No, I have not.

Q. Not read any of it?

A. No. Let me ask, the only testimony I read was in this case, I think.

Mr. Turner: That is all I furnished you.

The Witness: Yes. I haven't read any of the United testimony at all.

Q. So you disagreed with his theory in the United case without reading his explanation of it and his discussion of it upon direct and cross-examination?

A. You are going back now to the depreciation theory, are you?

Q. I am talking about the gas well construction depreciation?

A. Yes, I disagreed with it upon being informed of the principle involved.

Q. Do you understand that his method of depreciation involves a determination on his part of the life of the well?

A. You mean in the United case, of course?

Q. Well, the theory would apply anywhere?

A. Well, he used a different method here in this case.

5411

[fol. 2295] Q. Well yes, but I am talking about the method in the United; yes, you are right.

A. By rock pressure decline?

Q. Yes.

A. Only insofar as the rock pressure might be an indication of the life of the well but the life of the well was not directly considered, no.

Q. What was his method, what was the essence of his method in the United case as you understand it?

A. As I understand it, he secured the average of the original rock pressures of the existing wells at the time they were drilled in and the average of the rock pressures of those same wells at the date of the appraisal and determined the percentage that the present rock pressure bore to the original rock pressure and applied that percentage to the value of the property to determine its present condition.

Q. Yes. His purpose was to determine the per cent of depletion, was it not, that was his claim?

A. Yes, he determined the per cent of depletion of the field and applied that to the condition of the well.

Q. He didn't attempt to determine the reserve in M c. f.?

A. No.

Q. In other words, if you want to do that, you would have to take volume in, wouldn't you?

A. Yes.

Q. But whether the method is right or not, we will not for the moment discuss, but you can express depletion of a well or of a well in per cents, without expressing it in M c. f.?

A. Yes, you can according to the rock pressure decline theory.

Q. Have you often made estimates of the natural gas reserves in pools?

A. Yes.

5412

[fol. 2296] Q. Do you agree or disagree with the method that Ralph E. Davis used in the United case to determine the reserves down there?

A. I don't know what method he used.

Q. You haven't gone into that?

A. No.

Q. You have not made any estimate of reserves of the Ohio Fuel Gas?

A. No.

Q. Have directed no one to do it?

A. No.

Q. Could it be done?

A. Could an estimate be made? Yes.

Q. Do you know how many Number 4 acres The Ohio Fuel Gas Company has?

A. No, I don't think I have seen that. I know approximately the total number of acres and the number one acres, that is about all. Now, I don't know how many Number 4 acres they have.

Q. Mr. Weymouth, in your direct testimony, in answer to a question by Mr. Turner in respect to depreciation of gas well construction and equipment——

Mr. Turner: Page, Mr. Butler?

Mr. Butler: Page 5259.

Q. You said, "The depreciation of the well, as I have said, does not depend upon the decline in pressure nor in open flow nor upon the condition of the sand. It depends upon the condition of the well itself." If you say that it depends upon whether or not an operator would drill that well at a certain particular time, you then introduce an en-

tirely different theory of depreciation, which is more in the nature of market value theory.

A. I meant by that that the value would be determined by what somebody would pay for it, not necessarily by the cost of construction.

Q. And what somebody would pay for it would be determined how?

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[fol. 2297] A. I don't know how it would be determined, but that is what I had in mind, that it would be applying a different yardstick to the condition of the well than the one of observed condition.

Q. I was trying to get what the other yardstick was. We know what the one is. I was trying to find out the other.

A. I haven't worked it out.

5418

[fol. 2298] Q. If you wanted to fix the annual depreciation charge for each particular well, would you fix the same for the new well that you would bring in that I have talked about or would you fix it the same as for the original well that came in and is still producing, say?

A. If you were going to get up an annual depreciation allowance for each individual well, you would then be confronted with the problem of estimating the period during which the accumulation of annual depreciation allowances would build up to the cost of the well.

Q. Would the old well approximately continue down, have as long an after life as the life of a new well?

A. You are assuming I presume the well such as Mr. Pepperberg's chart 4009?

Q. I have no reference to his chart at all. I am talking about this pool that I started with you where there was a declining rock pressure, where it had been operated and where you were confronted with a problem of taking it out through a longer period or putting additional capital in and more wells and taking it out in a shorter period. Now, I am assuming, you have put new wells in and you

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[fol. 2299] are depreciating the well construction cost of the individual well. Let me put it differently, wouldn't it be more per year on the new well than per year on the old well?

A. The allowance should be more on the new well on the assumption that with the same sand and the same general

characteristics and assuming that the rock pressure of the new well was the same as the rock pressure which had been attained by the old well, the presumption would be that with the same withdrawing of gas from both of them, they would have the same life, and since you had been accumulating a reserve fund against the old well for the first few years of its life, the rate per year which you would set up as against that well would be smaller than the rate per year for the new well.

5425

[fol. 2300] Redirect examination.

By Mr. Turner:

Q. Mr. Butler has asked you to assume a pool where you had a number of wells and you had fixed a rate of depreciation upon each well and then after the number of older wells that had been in for some time, you drilled in some new wells. He asked you about the rate of depreciation that you would use for these new wells, and you answered that. Now, I want to know what effect the new wells would have upon the old wells already drilled in that pool, would they not accelerate the exhaustion of the whole pool?

A. Yes.

Q. And on Mr. Butler's theory then, would you not immediately go back and revise the depreciation estimate or reserve for the old wells when you put the new ones in?

A. Yes, if you had not taken that into account in estimating the rate of depreciation allowance for the original well, we would.

Q. Is a reserve set up on the books of the company for depreciation the measure of the present condition of the property at any particular time except the end of the life of the property?

A. It has no connection whatsoever with it until the end of the life of the property and it is not coincident with it in any way.

Q. What is the practice as to setting aside of a depreciation reserve, is it made by a lump sum or by some percentage of property in the gas business, what is the usual practice?

5426

A. It is usually set aside in a lump sum of dollars. That sum varies from year to year, but there is no case that I know of where individual items of property are separately [fols. 2301 & 2302] set up or where depreciation allowances are made for individual items of property.

[fol. 2303] Cost of Organization

The Ohio Fuel Gas Company

[fol. 2304] Company Exhibit 45

Page 24; Lines 16 to 23, Incl.

Organization costs are those necessary for the development or promotion of the enterprise and include services and expense of organizers and promoters, preliminary surveys and reports, charter expenses, legal and technical expenses pertaining to the advisability of the proposition, and the creation of the project as a corporate entity, all incurred prior to the starting of construction; the preparation of prospectuses, and interest on these expenditures during the preconstruction period.

2345

[fol. 2305] F. H. Lerch further testified on cross-examination:

Q. I want to turn now to page 23 for a bit of analysis. Take that organization cost, the fourth one mentioned there in the compilation, is that the same as the one known as organization and promotion cost?

A. Yes, sir. I think it is so described that way on Page 24, the paragraph next to the bottom of that page.

Q. Now, that gives practically two million dollars. How in detail would a promoter or an organizer or a band of them spend that two million dollars?

A. Well, a large part of that would, of course, be salaries of the promoters and their associates over the promotion period, which might run in a proposition of this size anywhere over two years. It might take a long time to work this size proposition involving the expenditure of a

hundred million dollars out and to sell it to somebody, some bank or banker or syndicate, who would be willing to undertake its financing. The technical expenses——

Q. Well, just there, now what kind of salaries? What kind of a gang of promoters are you going to have under your promoters and organizers? How many? What kind of salaries are you going to pay them?

A. You would have two or three men who would have either—who would have incomes or salaries of from $50,000.00 a year up; they might go a hundred thousand dollars a year. When you are talking about a hundred million dollar promotion, you are talking in tremendous figures, and the type of men who would normally be able to con-

2346

[fol. 2306] sider such a proposition would be men who had normally earned large salaries, and there would be two or three of those men in a group. If one man did it, he would be rather swamped, I imagine, trying to work the thing out in detail. So you would have to have associates for him of at least equal calibre to himself.

Q. How long a period of time are you going to allow?

A. It would take them a couple of years, doing nothing else.

Q. A couple of years? And they would have to spend all of their time, including their evenings, on it.

Q. Three men?

A. Two or three men.

Q. Three men do you say? You are fixing it rather definitely?

A. I would think it would possibly take three men of that calibre.

Q. Well, for two years each?

A. Yes, sir.

Q. Six years?

A. Six total years, not successive years.

Q. I understand. Six years combined?

A. Six man years.

Q. What have you decided about that? $75,000.00 a year?

A. They would average from 50,000 to 100,000. I suppose 75,000.

Q. There is $450,000.00. You still have left substantially a million and a half dollars?

A. Now, they would have offices, they would have people working for them, and they would also have considerable expense of technical advisers on their immediate staff, and they would have to purchase technical reports, geological reports, investigations and studies, and a great many of such kind of expenses, covering the entire State of Ohio, covering possibly the productive capabilities of the States of West Virginia and Kentucky, which it would take a year or two to get, and cost anywhere from a half to a million dollars. You could not get the figures without hav-

2347

[fol. 2307] ing a lot of detail work done, and that would take an endless amount of time.

Q. You are not getting your allowance for that too low? You think a million would do it?

A. I think a million would. That figure may sound to you and me, who are working for a living, like an awful lot of money. But we have had a lot of experience in trying to promote these companies, and I would say that—I don't know how much money our office has received from just that source in the last three or four years alone, but it is no small sum.

Q. The other half million you may repeat, if you will?

A. That is for lawyers' fees and reports, abstracts, and such other things as would be necessary to see whether all of these properties could be handled.

Q. You would have to have complete engineers' surveys?

A. You would have to have just about enough detail to start construction when the proposition was decided on, and that means you have to know the best plan that you will want to follow when construction does follow, and that means knowing everything that is necessary.

Q. Really what would you allow the lawyers? What do you assume would be the legal expense?

Mr. Turner: You are including both sides in the lawyers. The bankers have lawyers that have to be paid as well as the promoter.

The witness: Of course, there would be some law expense of that kind, but most of the bankers' expense would be reflected in the cost of financing.

Q. Don't get it twice?

2348

[fols. 2308 & 2309] A. Well, I will tell you, lawyers who would have to pass upon the questions involving the expenditure of one hundred million dollars, would, I imagine, charge very elaborate fees, and I would say that this total of $250,000.00 for lawyers' fees would not be out of line and would not be an unusual expenditure.

[fol. 2310] Cost of Financing

The Ohio Fuel Gas Company

[fol. 2311] Company Exhibit 45,

Page 25: Lines 8 to 13, Incl.

Cost of financing includes the expense involved in assembling the necessary capital for the enterprise and must not be confused with bond discount which has not been considered in the estimates. The expense is that which would be incurred in the floating of securities and as the interest rate provides for current market return upon the investment there is no discount to be considered.

[fol. 2312] F. H. Lerch further testified:

Q. Go to cost of financing. Is that a thing separate and apart from organization and promotion?

A. Yes, sir.

Q. I thought you had the bankers converted with that original expenditure?

A. We might have converted the bankers, but the bankers could not convert their ideas into money without spending some more.

Q. They were converted——

A. They were willing to go out and see if they could raise the money, and make the necessary expenditures doing that, which they would, of course, have to do after they were sold on the idea.

Q. Well now, give us the details of that $3,199,876.00.

A. Well, that is based on a percentage, which is just about a minimum percentage for this particular item. This cost of financing covers the cost of getting the dollars, the out of pocket expense of getting the dollars, on which

2355

[fol. 2313] this plant is built. It represents the expense of the banker, who in turn charges that to the company, of course, of issuing the securities and marketing the securities. By banker I mean the syndicate or very large banker who might handle such a large proposition as this. He has to sell the securities, bonds, stocks, preferred stocks and what not, and turn the money over to the company, and for that doing he charges a certain part of the money that is received from the ultimate purchaser of the security, and turns the balance, after deducting his own charges, to the company for those purposes. His charges are usually higher than the four per cent. that has been allowed here. We have used this four per cent. as representing legitimate, out of pocket expenses of the banker, without necessarily including any large item of profit that he might take for his interest in the work.

Q. You say "without necessarily including?"

A. Yes, sir. There might be a return in the four per cent. on the out of pocket expenses of the banker in the nature of interest on money devoted by him to the selling of these securities, but it would not represent any unusual profits to him.

Q. Just where, in what direction, in what matters, would this three million plus be spent?

A. That is what I have just now told you. It is spent in the effort and salaries and expenses of selling the securities to the public or to whomever they are sold for the cash dollars, which are turned over to the company by the banker, so that they may pay their bills and their payrolls and so forth.

Q. Is this done through the issuance of securities?

A. Yes.

2356

[fol. 2314] Q. Bonds?

A. Yes.

Q. Stocks?

A. Yes.

Q. What kind of a set-up do you devise for that?

A. We have not devised any particular set-up of this kind. It would include practically a bond issue for the most of it. I mean that has been the custom.

Q. For how much would you say the bond issue would be?

A. Oh, probably sixty to seventy-five per cent, of it.

Q. Say 70 per cent.? Would that be fair?

A. It might be that much. It might be a little less.

Q. What would be the loss there? What would be the amount that would go into this fund of the three million dollar plus?

A. Well, it would be whatever the public paid for the security, less what the company got for the security.

Q. In other words, the difference between what the company got and what the public paid for those bonds would go into this cost of financing?

A. That is right.

Q. In other words, if the bonds were put out, and I am illustrating merely, if the bonds were sold, or rather, I mean if the company got 95, but the public paid 98, three points would go into this?

A. Three points would represent the cost of disposing of those securities, the cost of the collection of the $95.00; but the company has to pay, or rather, the company only gets the $95.00 for its uses. That is on a security that is par one hundred.

Q. And the difference between what the public paid and par is what?

A. That is usually termed or would be strictly bond discount.

Q. Bond discount? And you regard that as such?

A. Yes, sir.

2357

[fol. 2315] Q. Now, I think I have your idea; and that same thing now would hold with respect to any stocks that were put out?

A. Well, it would with stocks, preferred stocks, we will say, of a par value, or something of that kind, but stocks as a rule are not subject to any upset price like bonds are. They are not redeemable in other words.

Q. You are correct. My question indeed should have related to the first. In determining the amount that goes into this cost of financing, you take the difference between

what the company gets for its share of stock and what the public pays for it?

A. That is right.

Q. Now, in addition to those items are there expense items of the bankers or do the figures include their expense items, or do they absorb their expense items?

A. This differential is supposed to cover their expense items.

Q. So that this in your judgment would represent the complete financing of the company, and is the difference, bonds and stocks, between what the company gets for them and what the public pays for them?

A. Yes, sir.

Q. Don't you think that it would be a little fairer under your definitions and explanations to include or rather to combine organization and cost of financing?

A. Oh, no, they are entirely different expenses. They may be the same kind of expenses, but they arise from entirely different purposes. One is the cost of selling securities for the raising of the money and the other is the cost of disbursing the money.

Q. Well, what did you get the banker to agree to do in the organization and promotion?

A. We got him to go out and see if he could raise the cash.

2358

[fols. 2316 & 2317] Q. You just got his assent to the proposition?

A. Absolutely, and that is the promoters' big step.

Q. Don't you get a binding agreement on his part?

A. I assume when I say that he got the bankers' assent that the bankers committed themselves.

Q. That is what I am getting at.

A. Yes.

By Chairman Geiger:

Q. Well, the banker is paid no fee at that time?

A. No, he takes his money out of what profit he can make in the sale of the security after he buys it.

Q. The first feature of the first cost of persuading the banker is simply the cost of those efforts and sums that must be expended to get the banker to say, "If you carry this thing through, we will float the bonds."

A. Yes.

Q. And take our compensation out of what we get in floating the bonds?

A. Theoretically that is what he does. Practically that is what he does—in reality that is what he does.

By Mr. Butler:

Q. In reality isn't that just as much a part of the cost of financing?

A. You mean getting him to agree to it?

Q. Yes.

A. Oh no, no, the other money is all expended for information, you might say, leading up to the point of contact with the financier who is going to make the effort to get the dollars together.

[fol. 2318] Going Concern

The Ohio Fuel Gas Company

860

[fol. 2319] L. A. SEYFFERT further testified:

By Mr. Turner:

Q. Now I have asked you also to produce any valuation that has been made of the intangibles of The Ohio Fuel Gas Company. I hand you what has been marked as Company Exhibit No. 57, and ask you to state whether or not that is such valuation?

A. It is.

2159

[fol. 2320] B. L. WHEELER further testified on cross-examination:

Q. I cross-examined you with respect to company's Exhibit No. 63. That was your report in respect to elements of intangible value of The Columbus Gas & Fuel Company. I now ask your attention for a little while to company's Exhibit No. 57, report of elements of intangible value, The Ohio Fuel Gas Company, as of June 30th, 1929. As I understand you, these two exhibits, company 63 and company 57, are your work?

A. Largely so. Not entirely. They are the work of myself as senior engineer on the staff of Ford, Bacon &

Davis in consultation with other engineers and under the direct supervision of one of the executives of the firm.

Q. Well, you had a superior in the preparation of these?

A. Yes, sir, as I am not an official of the firm, I had a superior, in the same way that every other report turned over by our organization has to be reviewed and considered

2160

[fol. 2321] by one of the executives.

Q. Who was your superior in respect to this company's Exhibit No. 57?

A. Mr. James A. Emery, Director and Vice President of Ford, Bacon & Davis.

Q. But I think you told me before, and no doubt you will repeat it for me, that whatever supervision he had, such supervision does not alter the fact that these are your views and your conclusions and your reasons?

A. No, that does not alter that fact, except that the report as a whole is intended to be the conclusions of the organization and not merely of one individual, myself.

Q. Of course, I cannot cross examine the whole organization, and I can cross examine only one, and what I am getting at is a preliminary matter. When I ask you about any conclusions and any reasons in here, you will not tell me that those are not yours, but that you merely accepted them from somebody else?

A. No.

Q. Well, all right. It seems to me, and you will tell me whether or not I judge rightly, that in your study of the elements of going concern value for The Ohio Fuel Gas Company, you have included some that were not in your study for The Columbus Gas & Fuel Company?

A. Yes, sir, that is right.

Q. What additional ones appear in this No. 57 that were not in 63?

A. To be certain on that I would have to have the two of them together here. I haven't a copy of 63.

Q. Well, when you get one, you can tell me, but we will go on. Well there it is. We will proceed now.

A. On page 3 of Exhibit 57—is that right?

Q. Yes.

Mr. Turner: Ohio Fuel is 57.

2161

[fol. 2322] The Witness: There are summarized the elements in that report, and see by comparison with page 2 of Exhibit 63, that the last four items in the former are not included as such items in the Columbus.

Q. Well, what items have you for the Fuel Gas Company that you did not have for The Columbus Gas & Fuel Company?

A. The item first entitled, "establishment of operating record forms and development of methods and operating procedure;" second, the element entitled, "consolidation value;" third the item entitled "abandonments of property prior to adequate amortization;" fourth, the item entitled "refinements of methods and operating procedure." It should be noted that the last item has no value assigned.

Q. Why not?

A. For the reason stated at some point in the report, that we believe there is some element of value there but in our opinion it was indeterminate and no definite value was assigned for that reason.

Q. Why do you put it in?

A. Simply for information, to state that we believe that there is some element of value there, but that it is so indeterminate in amount that we hesitated to assign any value.

Q. Well, do you in that way say to the Commission that they should disregard it?

A. We disregarded it so far as the amount is concerned, yes, sir.

Q. Well, you think it should be without influence in reaching the proper going concern value?

A. I think so, so far as the total amount is concerned. That is the way we have treated it.

Q. Now, let us discuss for a moment one of those new

2162

[fol. 2323] assignments, one of those new elements.

Chairman Geiger: What is that, Exhibit 57?

Mr. Butler: Exhibit 57, yes, Your Honor.

(Continuing:) Consolidation value; on what page do you begin that?

A. Page 56.

Q. Without reference to your book or reading it, would you tell the Commission in as terse and simple a way as you

can just what do you mean by that element of going concern value?

A. I think possibly the best way of trying to explain that briefly is to say that there is a mathematical axiom that the whole is equal to the sum of all its parts. In this case we consider that the value of the whole as a system is greater than the aggregate value of the sum of all of the individual parts, due to the element which we term unification, for the reasons that we have attempted to state in the report.

Q. You mean that the mere purchase of the Logan property by the Fuel Gas property added a value for rate purposes over and above the value of the property purchased?

A. That depends on what you mean by the value of the property purchased and that is one of the aggregates, but we mean that the value of one of the individual properties, considered as a separate entity, and the value of another similar property, and third, when they are unified into a comprehensive whole, we think that there is an element of intangible value there due to that unification, over and above the separate physical values of the units.

Q. In other words, just for purposes of illustration, without any reference to actual figures, suppose that the proper

2163

[fol. 2324] rate base for the Logan at the time it was taken over was 50 millions, and suppose that the proper rate base for the Fuel Gas at the time it took over the Logan was one hundred million; now, when you combine them you get a new value, which you call going concern, in addition to the totals of the other values, which you would carry into a combined rate base?

A. If in your definition where you say value for rate purposes of the individual companies you mean their individual value as we would find it physically, yes.

Q. Well, this going concern value that we are talking about is a value that you use only as we are discussing it for rate purposes; isn't that true?

A. No, I don't think so.

Q. That is what this study is for?

A. Yes, but you could use it for other purposes. You might use it for sale purposes or fair market value.

Q. Is there a connection between the going concern value that you use for rate purposes and the going concern value that you use for sale?

A. Surely.

Q. Necessarily?

A. Why, I think so, yes, sir. If it was for purchase of the properties as a whole or for sale of the properties, they would have commercial value as a unified system in the same amount that we are attempting to find here.

Q. Well, then, let me understand. This going concern value that you fix is the same as the—I mean this additional going concern value is the same as the additional sale value?

A. It is the same as the additional intangible value, for whatever purpose it may be used, not necessarily for rate making purposes, but for any commercial purpose. It is the same for this purpose.

Q. No difference?

A. No, sir, that I conceive of.

2164

[fol. 2325] Q. You have never thought of any difference?

A. No, as I think of it I consider it the same as fair market value on the basic date, irrespective of the special purpose.

Q. Well, your reproduction cost new depreciated is not the same as market value, is it?

A. It is an element of it for the physical property.

Q. So you say that as you combine various companies, the mere combination brings an additional value that is not otherwise reflected in the physical property?

A. Not in every case that is has to; it very frequently does. In this case we think it does absolutely.

Q. Well, you seem to think that it inhered to all of these combinations?

A. Of the individual items mentioned in that report, yes, sir, but I do not state that as a thesis, that every time two concerns are unified their aggregate value must necessarily be greater than the sum of the two.

Q. But in building up your study here, did you find any combination, any addition to Ohio Fuel Gas, that did not bring in itself in your way some additional going concern value because of the combination or addition?

A. It is difficult to answer that as phrased.

Q. Well, you tell it your way.

A. But the value of the entire unified system built up step by step, of an aggregate, not merely of one addition of one concern, in our opinion gives a value in a greater

amount than the mere reproduction cost of the physical assets of the two systems. I think if I might be permitted I could give another illustration.

Q. I shall be very happy to have it.

A. In New York City there are numerous individual con-

2165

[fol. 2326] cerns engaged in furnishing transportation, the Interborough system, the B. M. T. system, the Elevated system, and there soon will be a city owned system. I think there is no doubt whatever that if those systems were combined in a unified transportation system, the value, not only for rate making but for commercial purposes, would undoubtedly be far in excess of the physical value of the individual systems, and that is what we have tried to demonstrate in this case here.

Q. That leads to this, doesn't it, that the A Company may be charging a rate correctly fixed by the Commission, and the B Company charging a rate correctly fixed by the Commission; now you combine them, and it may be that the mere combination brings in an additional amount to the combined rate base?

A. It may be that the unification of those physical properties does just that, yes, sir.

By Chairman Geiger:

Q. What is that last? Unification of the——

A. It may be that the unification of those physical aggregates does just that.

Q. Does just that? Results in increased value for rate making purposes?

A. Results in an increased total value.

Q. For rate making purposes?

A. For rate making or other purposes.

Mr. Turner: You mean by that commercial value?

The Witness: Commercial value.

Chairman Geiger: We are talking about rate making.

Mr. Turner: We are talking about value, Your Honor.

The Witness: We are talking about value, irrespective of whether it is used for rate making purposes or not.

Q. Well, you do not seem to make any distinction, if I

2166

[fol. 2327] get you rightly, Mr. Wheeler, between the values

for rate making purposes and values for any other purposes?

A. Only the distinction that is necessary because of certain provisions of law that reproduction costs be considered. If you consider that same element, you would have the same value for commercial purposes, but the total value is the same in my opinion, irrespective of the special purpose.

By Chairman Geiger:

Q. Well, the result of that would be that the more combinations of physical groups a parent company is able to make, the greater would be the value of the combination, and the greater rate could you charge for its product, whatever it may be.

A. It might go beyond a point where any additional value resulted.

Q. As long as there is an added value by reason of combination it may result in an increased rate to consumers?

A. It may.

Mr. Turner: May I make an observation there, that it may also result in a decrease, and at the same time have a value, because going concern value comes out of savings, reductions of cost, just as much as it does increase of rates; probably more so than it does by an increase of rates. If by a combination you can get a cheaper operating ratio, you make more money on the same rates.

The Witness: My answer should be confined to the rate base. I am not considering the rate as determined by gross receipts and net. I am simply answering for the rate base. It results in a greater rate base.

By Chairman Geiger:

Q. It results in a greater property used and useful in serving the community by that particular utility?

A. Yes, sir, in this case.

2167

[fol. 2328] Mr. Turner: That is probably so.

By Mr. Butler:

Q. Well, value for sale purposes is very greatly dependent upon returns?

A. Yes, sir.

Q. Does that enter into the value for rate making purposes?

A. Well, if it was a commercial company that had no regulation, its value would be dependent almost wholly on returns, but where it is a public utility, subject to regulation, the fact that it may not be allowed to earn more than a specified rate on this rate base, of course, has to be taken into consideration.

Q. Let me state this problem. I think you know that the Logan and the Fuel Gas were combined in June, 1929, or, rather the Fuel Gas purchased the Logan at that time?

A. I believe that is correct.

Q. Please assume it.

A. Yes, sir.

Q. Now, at that time the Logan for rate making purposes had in your judgment a certain going value. I am not asking you to fix the amount.

A. I presume so. I have not attempted to analyze the Logan, but I presume so.

Q. Didn't you study this combination? Don't know what the Logan was?

A. Yes, but I have not attempted to put any amount of going concern value on the Logan, which I thought was what you asked.

Q. No, I said without respect to the exact amount?

A. Yes, sir.

Q. It had it?

A. Yes, sir.

Q. Which you could have determined according to your process?

A. I think so.

Q. Now, that was true of the Fuel Gas at that time?

2168

[fol. 2329] A. Yes, sir.

Q. You could have determined its going concern value?

A. Yes, sir.

Q. Now, if I understand you rightly, the moment that those two companies were put together, the moment that the Fuel Gas purchased the Logan property, as it did, and took it over, the going concern value of the combination was greater than the total of the old Logan going concern and the old Fuel Gas?

A. There was an additional element of going concern value due to that unification, yes, sir.

Q. Without regard to what was paid for the Logan?

A. We have given no consideration to cost of the Logan in here. In building it up by that method I do not see that that enters into it directly.

Q. Then you could answer my question rather simply. That conclusion is reached——

A. Without——

Q. Without any study or any desire to make a study of what the Fuel Gas paid for the Logan; in other words, your conception, as you now present it, has no connection with actual considerations or with historical cost?

A. It is not dependent upon historical cost.

Q. But in that study you say something like this—that is page 57; I do not want to quote without your seeing it—"In the case of The Ohio Fuel Gas Company, the several conditions above listed, which result from the unification of the physical properties, have been produced at considerable cost, the exact amount of which, however, is not now determinate." Just what do you mean by that?

A. As those unifications took place, there was undoubtedly for practical methods a certain amount of cost that

2169

[fol. 2330] would be involved in considering the properties to be unified and making the acquisitions, as an attempt is made to explain on that page and the following one; but the amount of that cost in our opinion is a consideration that would have to result from practical experience; it is not a case of adding up the sums of the costs that did occur from time to time as the several properties were acquired or put together. It is a historical statement of what undoubtedly occurs in every case of that kind.

Q. But a statement of facts, not accurately determined, as you say, and properly so, which have no relation to and no influence upon your conclusion?

A. I think they have the influence to the extent that if it was perfectly feasible always to unify these properties and it could be done without ever costing a cent, that would have to have a bearing on the fact of what the total value was; for practical purposes it is realized that that cannot be done.

Q. It does cost something? It does cost something?

A. It does cost something to accomplish that result.

Q. Shouldn't that be taken from the value that you otherwise would allow for going concern value?

A. I do not quite gather what you mean by "taken from".

Q. Why do you mention the cost? What is your idea in mentioning it?

A. Simply that that is a historical fact, that that always occurs under those conditions, and all that discussion is for the purpose of an estimate, and not a mathematical addition.

Q. But suppose the Logan, the moment it was taken over, without practically any cost, was a part of the prop-

2170

[fol. 2331] erty of the Fuel Gas, the unification complete as it was taken over; but suppose another case where large sums of money had to be expended in order to complete the unification; would you make any difference in the amount of going concern value?

A. In attempting to estimate that later, I think [illegible]ied to and considered what the actual facts had been. But in a subsequent estimate I do not know that it would actually affect the result of that item.

Q. What did you do here?

A. We attempted to ascertain the facts, and made an estimate, after stating all of those facts historically. We did not attempt to say how much it cost in each individual case and add them up at all.

Q. How in the name of heaven could you let your judgment be influenced by the cost if you did not have some fair approximation of the amount of the cost?

A. Simply because we realize that there are always certain costs, and after studying all of the conditions here we made what was purely a mathematical judgment estimate.

Q. A mathematical judgment estimate?

A. I should cut out the word "mathematical".

Q. Couldn't you cut out a few more?

A. We made what we considered to be a reasonable estimate under the conditions stated in this case.

Q. It was a matter of judgment?

A. Absolutely.

By Chairman Geiger:

Q. Judgment based on what?

A. Based on the conditions which we ascertained in this case and those that come from historical facts and records, and based on the experience of our organization in similar cases.

Q. As to what such a combination would cost or what it

2171

[fol. 2332] would be worth after making it?

A. As to what the additional value would be or the aggregate value after the unification took place.

Q. Your judgment is not a judgment as to what it would cost to make the combination, but what the added value would be to the separate properties after they were combined together?

A. Yes, sir, that is true, except that we considered that in every practical instance there would undoubtedly be elements of cost expended there in accomplishing that result.

2173

[fol. 2333] Q. Now again you say, Mr. Wheeler, at the bottom of 57 or 58 "As their business increased, the advantages of larger units began obvious, and the formation of such units was necessarily the result of compromise and reconciliation of the opinions of the owners of the original smaller concerns." Now, just tell me if you can just what you mean by that and what influence that statement has upon the amount of going concern value determined from this element?

A. I don't know that that has any direct influence on the amount, but it is a statement of what we consider generally and usually results in acquisitions and consolidations of that nature.

2174

[fol. 2334] Q. When you buy anything, when anybody buys anything from anybody else, they have to get together, don't they?

A. Yes, sir, that is that the statement attempts to say.

Q. Then you say further, "such reconciliations can be effected only through cash or equivalent considerations." How does that tie into your judgment and determination as to going concern value of this plant?

A. It is one of the factors that enters into the ultimate conclusion of the unification in any particular case; as you put it—get together.

Q. How does it affect going concern value?

A. It is part of the general consideration and basis for the making of the estimate.

Q. Well, the going concern value resulting from the unification of two properties is the same whether the purchasing unit got a good bargain or a bad bargain, isn't it?

A. Yes, but the purchasing unit would always have to take into consideration that condition of compromise and ultimate acquisition at a different price from what might be originally set, bargaining, and other factors, and when the unification was accomplished, there would have resulted a course which would have had a bearing on a similar estimate.

Q. Of going concern value for rate making purposes?

A. It is one of the conditions, yes, sir.

Q. What they paid for the property?

A. No, not what they paid for it. The element of cost necessarily incurred in the acquisition and unification, not the cost of the property, but the expenditures that were made in getting that thing accomplished.

Q. Oh, like brokers' fees and lawyers' fees?

2175

[fol. 2335] A. I don't think that that was specifically involved, no, sir.

Q. What do you mean?

A. I cannot give you a better definition that we attempted to set out in the report. If it is poorly worded I regret it. But we attempted to state conditions there, and at the conclusion made what we termed an estimate.

Q. For the sake of the question, I am willing to do violence to my own judgment and say it is beautifully worded, but I want to know to what it refers? What items have you in mind?

A. Simply the condition that resulted in making our estimate—all those conditions set forth there as to historic facts in any conclusion of this kind have a bearing on the estimate.

Q. You have to know the amounts, don't you?

A. No, I don't think you do, if you knew the amounts it would simply be an added conclusion.

Q. Suppose when the Fuel Gas purchased the Logan, they just outsmarted the Logan and got a very great bargain. I think I have heard a suggestion that maybe the Logan did have to sell because it did not have enough gas. But, be that as it may, just assume that the Fuel Gas outsmarted the Logan and got a great bargain, and, without costs and without charges it fell into its lap—you know the phrase—would you change your amount of going concern value resulting from the unification?

A. If that conditions was a fact, then they would have gotton a value greater than the cost. If they got such a great bargain, the value might have been far in excess of the cost. I am not considering what it would cost them to purchase the property.

Q. Well, would that and your determination of the

2176

[fol. 2336] amount of going concern value resulting from that unification?

A. The relationship between the cost and the physical value, no, sir.

Q. Then in the name of heaven why have you got it all set out here and are assuming it?

A. I do not think we have assumed that condition.

Q. But why did you refer to it?

A. Simply, as I have attempted to explain, because it is one of the conditions that invariably occurs.

By Chairman Geiger:

Q. Do you think in this particular case they got a greater value than they paid for?

A. I don't know. I have not attempted to determine that.

Q. Of course, you don't know what they paid, that is, what it cost?

A. I do not, sir.

Q. But your general assumption that the combination of the two different units makes an added value——

A. Very frequently.

Q. You have recorded it in this case?

A. In this case, yes, sir.

Chairman Geiger: All right.

Q. By the way you figured out $4,500,000.00 for this element, didn't you?

Chairman Geiger: What page is that?
Mr. Butler: He shows it on page 3.
Mr. Turner: It ought to be on page 3.
The Witness: Page 66-A.
Chairman Geiger: 66-A?
The Witness: Yes, sir.

Q. Well, now that is a considerable amount, at least for 2177
[fol. 2337] us on this side of the table?

A. It is approximately four per cent. of the reproduction cost new of the physical property.

Q. Why didn't you make it two? Why didn't you make it five?

A. Because four was in our opinion the base judgment; it might have been four and a half; it might have been three and a half. It is expressly stated that that is absolutely an estimated based on judgment and that therefore cannot be an exact figure. It is not intended so.

Mr. Turner: May I ask a question there?
Mr. Butler: Yes, if you don't break the continuity.
Mr. Turner: I won't break the continuity.
Mr. Butler: All right.

By Mr. Turner:

Q. Were you getting at it by percentage basis or by simply judgment?

A. By judgment. The percentage is intended to give a relationship to anyone to show whether this four and a half million is 50 per cent. or one per cent. of the cost of the property.

Q. All I was trying to find out was whether a percentage was arrived at and then applied, or the percentage is the result of your judgment?

A. Expressed that way, I think the percentage is the result of the judgment.

Mr. Turner: Thank you Mr. Butler.

By Chairman Geiger:

Q. Do I understand this going concern value which you have estimated to be worth $4,500,000.00 is confined to that

element that is due to unification and is exclusive of those other elements of going concern value to which you and other engineers have testified, such as attaching business or training personnel?

A. Yes, sir, that is entirely true, and that is very definitely set forth on page 3, where it shows as one of the

2178

[fol. 2338] total elements.

Q. This total of $4,500,000.00 is a value to be added, due to the single element of unification?

A. Yes, sir.

Chairman Geiger: All right.

Q. But again I see there, "The Ohio Fuel Gas Company in its assembly"—let me read accurately—"In the actual assembly of the units which make up the Ohio Fuel Gas Company, considerable sums must have been necessarily expended in this way." Then you proceed, "Although there is evidence to show that large amounts were thus spend, such information is insufficient to enable any reasonably accurate calculations to be made of the total involved." Now, what do you mean when you say there is evidence to show that large amounts were thus spent?

A. Well, there was information available that there had been expenditures made in accomplishing those purposes, but we did not attempt to build up historically every item of cost that had been incurred in accomplishing those results. We mention incidentally in attempting to determine the conditions historically that we were furnished with data to show that there had been expenditures, but they were fragmentary in their nature so far as we could determine from the records, and we merely mention that as a historical fact, without attempting to use those figures to build up an additive sum in making of the estimate of those amounts.

By Chairman Geiger:

Q. It was not approximately $4,500,000.00 or anything like that? Would you say $100,000.00 would cover those amounts?

A. I don't recollect the figures, because they were only considered as showing actually the usual condition was followed and there were expenditures made, and it was

2179

[fol. 2339] not an attempt to secure a total of historic expenditures.

Q. Well, do you have in mind there the changes that were necessary to complete unification? You further say, right after that, that such expenditures were well made in the interest of the public may be evidenced by the fact that a unified company of this size can operate more economically than would be the case for a number of small concerns."

A. We made that as a general statement not as a specific statement.

Q. To what expenditures were you referring? Prior to the unification, or expenditures that followed after?

A. No, we mean that any expenditures made in any instance of this character accomplishing that result, which resulted in that condition would be well made.

By Chairman Geiger?

Q. Can you point out, or do you point out, where that combination and that expenditure on which you write an estimate of $4,500,000.00 has resulted in any benefit to the consuming public?

A. Well, the text attempts to explain that in detail, the physical conditions.

Chairman Geiger: All right. It is already there? That is all right.

By Mr. Butler:

Q. Well, over under field and transmission systems you say, "It is estimated by the operating officials that there are not less than 150 separate points in the field and transmission pipe line systems where it has been found advisable to make various pipe line tie-ins and interconnections.

Mr. Turner: What page is that on, Mr. Butler?

2180

[fol. 2340] Mr. Butler: On page 60.

The Witness: 60.

Mr. Turner: Oh yes, there it is.

Q. Now, the fact that those changes were made or could be made was an element in determining this going concern value?

A. Yes, sir.

Q. You are not referring to the cost there?

A. No, sir.

Q. That does not enter into it?

A. No, sir.

Q. If I read some of your statements correctly, a very considerable part of this element of going concern value as estimated by you as due to the fact that, after the Fuel Gas took over the Logan, it resulted in short hauls for gases, using the gases nearest the points where they were received or produced?

A. That would be one of the natural economies which should be effected, yes, sir.

Q. Well, I see that you devote a number of pages to the discussion?

A. I believe that is correct, yes, sir. That is referred.

Q. In other words, you found that, instead of, as in the old days, the Logan hauling the gas from Sugar Grove to Toledo, Toledo can now be furnished from the nearest production?

A. Yes, sir. That is mentioned on page 62 *sepcifically*, I believe.

Q. How much importance in dollars did you attach to that element?

A. That is almost impossible to state. It was not broken down into individual dollars due to that condition or the other. It was an aggregate of all those conditions, the result of which was an estimate. I could not possibly state that one per cent. of it was due to that condition or two per

2181

[fol. 2341] cent. or three per cent. to some other condition. That is one of the aggregate conditions which we considered the physical unification resulted in accomplishing.

Q. Well, did you trace the history of each of the other purchases?

A. We attempted to secure the historic information about all the several acquisitions there and attempted to set forth over here on these many pages the physical and economic results.

Q. What was the change that resulted to the Fuel Company from its purchase of the two transmission lines to Toledo in 1929?

A. I would have to read this over and re-familiarize myself with some of those details there. I don't recollect that specific point.

Q. Well you can do it at the noon hour then.

By Chairman Geiger:

Q. Do you attach the real value to the acquisition by the Fuel of the Logan's pipe lines in that thereby there would have to be a shorter haul of gas from the producing field to the consumer?

A. In general yes, sir.

Q. Did you hear Mr. Phillips' testimony in this case, in which he testified in effect, not definitely, that the entire supply pipe lines throughout Ohio were lines that were used for the benefit of each consuming community, and that there was a complete free flow of gas back and forth?

A. No, sir, I didn't hear that testimony at all.

Q. Well, I don't know that your view of it exactly coincides with his.

(No reply.)

By Mr. Butler:

Q. In other words, you discuss that on pages 64 and 64-A. You say: "Another instance of the advantages re-

2182

[fol. 2342] sulting from the operation of the unified system may be cited in regard to the former practice of the Logan Gas Company in transporting large volumes of gas, approximately 25 million to 30 million cubic feet per day, from its Sugar Grove compressing station to the Bangs compressing station, a distance of about 50 miles, and then from the Bangs Station to the markets of northern Ohio, such as Fremont, Sandusky, and other communities, a further distance of 75 miles. It has now become possible to supply the needs of certain of these northern Ohio consumers with natural gas produced in northern Ohio and transmitted through pipe lines of the system situated adjacent to the communities involved. A further result is that the gas formerly transported by the Logan Gas Company from the Sugar Grove Station to northern Ohio can now be used at much nearer points, such as Columbus, Dayton, Springfield, Zanesville and so forth. Therefore, one result is that north-

ern Ohio markets are being rendered a more satisfactory and efficient service and the gas is being transmitted a much shorter distance, with considerably less leakage and waste?"

A. Yes, sir.

Q. Now, you understand that to be the situation?

A. That is the situation as we consider it, yes, sir.

By Chairman Geiger:

Q. Supposing Mr. Phillips had testified as a practical gas man that the gases from Kentucky, West Virginia and Ohio were commingled into a common supply of gas, flowing freely throughout the connected transportation pipe lines throughout the State of Ohio, and that one would be unable to state the source of any gas burned at any particular place, as to whether it is Kentucky gas or West Vir-

2183

[fol. 2343] ginia gas or Ohio gas, would that in any way modify your conclusion?

A. I don't think so.

Chairman Geiger: All right, that is enough unless you want to explain something.

By Mr. Butler:

Q. For example, again you say, "The Toledo distribution system previously was served entirely from the Wheeler compressing station through two ten inch lines, a distance of about 158 miles, and it was accordingly necessary to transport this gas at high pressure through this length of the pipe line. More recently a large part of the necessary supply for Toledo has been delivered from the Pavonia Station, located only about 85 miles distant."

Chairman Geiger: Answer the question.

A. Well, there is no question asked.

Q. Let me finish that particular thing. As I understand you, this unification resulted—and I am talking about Logan and Fuel Gas—resulted in a very marked added ability to supply old Logan distributing points where there had been difficulty before, and made it much easier for the Fuel Gas Company to deliver its required supplies through shorter distances?

A. Yes, sir.

Q. And now you say that just because of those results, those things resulting, when the two companies were put together, you would on account of that put into your rate base an additional amount for going concern value?

A. I would put into my value, irrespective of rate base, that additional amount.

Q. We are talking about rate base. That is what we are talking about?

A. All right, rate base or any other value.

Q. I observe that under unification value, for which you

2184

[fol. 2344] have allowed this sum of $4,500,000.00, you have some subheads, and one of them "stability of earnings." Where do you discuss that more fully, or where do you discuss it?

A. I do not think that is discussed. It is mentioned there as one *fo* the conditions that exist usually in any unification. It is merely referred to without further discussion.

Q. Well, in your summary, beginning on page 66, you say, "Considering the several features with respect to unification value as discussed, there are to be valued such major factors as (a) greater reliability of service, (b) greater stability of the unified system, (c) increased degree of responsibility of the management and corporate organization in its dealings with the public, (d) more efficient control of natural gas supplies, (e) increased credit of the unified company, (f) economies of unified operations, and (g) expenses incurred in effecting the unification." Now, it turns out that expenses in effecting the unification are a major factor in your judgment, doesn't it?

A. That is referred to as one of the major factors, yes, sir.

Q. Yes, "the" major factors, yes. How could you make it a major factor if you did not make some decent, honest, critical examination of the amount?

A. Well, personally I think that that is relatively less important, although it is referred to under that definition of major.

Q. Well, may I substitute in that respect, in respect to that then, the phrase "minor factor?"

A. Well, the relative importance of those five or six or seven I would not attempt to define. I think that that is one of the least important ones of the several ones.

2185

[fol. 2345] Q. Of course, you will pardon me if I remind you that this is your language and not mine, and I am trying to get what you mean?

A. It is always possible to improve the language.

Q. Well, basic truths usually stand out rather prominently. You do not say though that that is a major factor now?

A. It is one of the several which I consider less important.

Q. If that is as near as you can come to it——

By Chairman Geiger:

Q. Well now, on page 66 you have enumerated to g, inclusive. Which is the important of those?

A. That is just what I said a moment ago, that it would be very difficult to line those up.

Q. All right. You cannot pick out one of those from a to g that you say is the most important?

A. I think that d is probably, if not the most, one of the most, because that is the physical condition of efficient control of the supply, and f is one of the more important ones. As to just what relative importance those several ones have to each other is almost impossible to state.

Q. Upon what theory do you get dollars into this "growing" concern value under the term increased credit of the unified company?

A. Well, that is one of the resultant conditions of the unification. That is the more stable and larger the concern as a result of the size of the physical assets involved, naturally the greater the credit in that a larger and more stable concern has better credit than a small one, and that would reflect on its ability to borrow money and accomplish results and take discounts. That represents one of the factors that go into this element of intangible value.

2186

[fol. 2346] By Chairman Geiger:

Q. Well, which one of them in your judgment results in a reduction of rate to the consumer? All those you have enumerated have apparently been the basis of an increased valuation of your property and consequently an increased rate to the consumer. Is there any one of them any where that might by chance result in some benefit to the consumer in having the cost of the gas reduced to him?

A. It may result in an increased total value for rate making purposes, but they do not necessarily result in an increased rate. One of the factors mentioned there is economy of unified operation. It should be possible to operate more efficiently one unified unit than separately to operate the three or four that make it up.

Q. Now, if there is an economy of operation, it should ultimately be reflected in the price at which your could afford to deliver your commodity to the ultimate consumer, should it not?

A. Yes, sir.

Q. Then have you traced any of these down to the point where it does that?

A. No, sir, I have not attempted to do that. This report does not attempt to establish the rate. It attempts to establish the value on which the rate should be based.

Q. Would you say this, that whatever results in economy to the operation of the producing company should naturally result in a reduced rate to the consumer, provided—well, result in a reduced cost of delivery to the consumer?

A. It should result in a reduced operating cost, and if the present rate is sufficient on which to base a fair return, then it should result in a reduced rate, that one element.

2187

[fol. 2347] By Mr. Butler:

Q. If I understand you, other things being equal, you give some additional going concern value to a company because it is large rather than small?

A. Oh, no, not necessarily just for that factor, no, sir. Its actual size need not be the criterion.

Q. What was your criterion when you said, "Increased credit of the unified company?"

A. The fact that I have just attempted to explain that a concern made up of several units—its credit is presumably greater than the individual credit of any one of those small units in general.

Q. Well, that leads, doesn't it then to the conception on your part that you create additional going concern value by gathering up separate units and putting them together into a larger unit?

A. Presumably so, yes, sir. You may not always do it, as I have attempted to state.

Q. What do you mean by "Increased degree of responsibility of the management and corporate organization in its dealings with the public?"

A. I don't know that I can define that any better. The fact that there is a large organization usually results in a greater responsibility than a smaller one.

Q. I guess you vote for size, don't you?

A. No, I am not voting in the matter.

Q. All right. Well, over on page 56, you have listed "stability of earnings" as something produced to which you attach importance. What connection has that with the going concern value?

A. It is one of the elements mentioned there as a condition produced by the unification, that there will be more stability, both in earnings and operations and other factors

2188

[fol. 2348] in a larger unified outfit than in a number of smaller ones. There is no specific amount assigned to that subheading. It is simply mentioned as one of the general conditions produced, bearing on the subsequent estimate.

Q. And you make your going concern value reflect the situation as to whether earnings are stable or unstable?

A. That is one of the general conditions taken into consideration, yes, sir.

Q. Now, you have also listed under group 2 on page 3 "Abandonment of property prior to adequate amortization. $250,000.00". Did you determine that from judgment, or does that represent actual figures that you discovered and worked out and summarized?

A. That is one of the factors determined by judgment, but the actual conditions in one portion at least of the company's historic operations sets forth an amount which was considered in making that estimate.

Q. Well, my first——

A. Pardon me. I was not quite through.

Q. Yes, go ahead.

A. As shown on statement No. 11 and statement No. 12, where amounts were developed from actual earnings.

Q. Is this amount, $250,000.00 the total of actual amounts, or is it the result of judgment?

A. It is the result of an estimate and judgment.

Q. What do you mean by "Abandonments of property prior to adequate amortization?"

A. Prior to what?

Mr. Turner: Adequate amortization he said.

The Witness: Why, what I mean is that the conditions resulted in necessary abandonment or discarding of certain

2189

[fol. 2349] facilities before what was estimated to be the termination of their normal useful life. Subsequent conditions arose that made desirable the discarding or abandonment of facilities prior to such a time as they would have ordinarly been amortized or provided for on the company's records.

Q. Would this sub-head mean the same if I read it this way, "abandonments of property prior to the end of normal life?"

A. That is almost the wording used on statement No. 12, "abandonments of certain facilities prior to the termination of their normal operating life."

Q. In other words now, if there is a part or unit of this system that has an estimated life of say twenty years, and the unit goes out in ten, you would thereby and because of that add something to going concern value?

A. We would have that reflect an estimate, yes, sir. We would not merely take that mathematical amount and add it, but we would attempt to consider all those conditions which had resulted in the past as a basis for an estimate of that element. As I said, that amount is not intended to be an actual mathematical result of the past happenings, but is intended to be the basis for making the estimate of that element.

Q. I am trying now to get your principle, your major reason, and I again repeat, if a unit of this sort, having a conceded normal life of twenty years, should go out in ten years, would that fact call for the application of your theory in respect to increasing going concern value?

A. If there were sufficient of those items, if there was merely one determinable item in the property account, I would say it was so slight that it would not be warranted

2190

[fol. 2350] for use as a basis of an estimate.

Q. I am talking about principle?

A. As a principle, if there were enough of those, that would be justification for estimating that element.

By Chairman Geiger:

Q. But I do not quite get the reason why it should be added to the going concern value rather than be subtracted from it. It would appear to me at first blush if you lose that article, that would normally last you twenty years, at the end of ten years, by reason of these combinations or whatever has happened, instead of adding $250,000.00, as you have named it, to going concern value, it would subtract it from it and make it that much less. It would look to me at first blush as if you are $500,000.00 off; you ought to have subtracted rather than added it. Why did you add?

A. From the historic standpoint it represents an unamortized value there; and it is based on the assumption, of course, that the original estimate of normal operating life was proper and reasonable.

Q. You are not getting to the question. You either do not understand it or you are not trying to answer it.

A. I am trying to answer it. To my mind, if it is unamortized, it is a factor that is an added thing rather than subtracted.

By Mr. Butler:

Q. Does this principle apply to all of the facilities—compressor stations?

A. We have taken those as examples that it is possible to find out what the conditions really were. Compressor stations were one of the few where there were definite records obtainable, showing just what that condition was.

Q. Pipe lines?

A. It was very difficult to secure any concrete data on

2191

[fol. 2351] that. There is reference made to the distribution system facilities, and one of the statements, statement 11, lists some examples that occurred within a period of eighteen months of that nature, but so far as attempting to get to the mathematical answer and a complete analysis of every item of that nature, it would be well nigh impossible. It is merely cited as examples of that condition, which we believe justify consideration in the estimate.

Q. Well, in respect to a transmission line, how would you apply your theory to abandonment prior to the termination of the normal life?

A. Well, if there was a transmission line which, of course, was known and which had a reasonable estimate for normal life at the time of its construction, and subsequent conditions came into being, such as the unexpected depletion of the field, rendering that transmission line of no further usable value, and if it is was economical to salvage it, you would have unamortized cost as part of the original expenditure.

Q. That is, when a line went out, you would first determine its normal life and then see how many years of the normal life had not been used or exercised?

A. Yes.

Q. I see. Well, you assigned a life, a normal operating life, of twelve years to these compressor stations. How did you work out that normal life?

A. As I recollect, that was the result of considerable discussion with operating officials as to what they considered the normal life of those stations under conditions in the field.

Q. Don't forget you were not to hide behind any operating officials. I had that up with you.

2192

[fol. 2352] A. You have not quite let me finish.

Q. All right.

A. We put twelve as our judgment.

Q. As "our judgment?"

A. Yes, the judgment of our office, and the other engineers who discussed that, as representing what was average normal expectancy. There is one item there where it is placed at eight years insteads of twelve.

Q. Which is right?

A. That second additional installation which occurred some years after the original, only had an expectation of eight normal years. It was an addition to an already existing situation.

Q. Did you work out this twelve years or did you accept it from somebody else?

A. No, sir, we did not accept it.

Q. We are talking about you.

A. I can not talk individually, because we have actual gas experts in our own organization, who were consulted and with whom it was discussed, that one item of normal life. We did not accept the company's estimate, but we

consulted with them and attempted to secure what they thought was a reasonable, normal life, and then we discussed it in our own office with other engineers who were experienced in natural gas operation, so that it does not represent an individual estimate by myself.

Q. Well, I feared that. But all right. Now, time goes on. That is a way that time has. You have a station, a compressing station, that lasts fifteen years. That is beyond the normal life. What do you do then? Subtract from your going concern value?

A. No, if it is all recovered through amortization, if it is recovered sooner than it should be, there wouldn't be any value there one way or the other.

Q. You told me awhile ago that I accurately stated your 2193
[fol. 2353] proposition when I spoke of abandonments of property prior to the termination of the normal life. Now, I am talking about the same type of property that survives and lasts beyond the period of normal life. Do you do anything in respect to that as reflecting upon going concern value?

A. No, sir.

Q. Well, Mr. Wheeler, isn't normal life made up of lives below the normal and of lives above the normal?

A. The average is yes, sir.

Q. Then why, even if I grant some scant respect to your theory, why do you pick out those who have gone out prior to the expiration of normal life, when you know that normal life is made up of those who expire before as well as those who expire after?

A. Because if the normal life was overestimated, you have unrecovered cost, but if it was underestimated, the cost is merely recovered sooner, and after that you would no longer have anything to recover.

Q. But normal life has not been overestimated. You still say, don't you that the normal life of these compressor stations is twelve years?

A. On the average, yes, sir.

Q. Normal life doesn't mean one individual life, does it?

A. For that particular individual, yes.

Q. Well, I guess you are right about that.

Chairman Geiger: I think he means, as I get it, that a piece of machinery, such as the compressor stations, would

run twelve years; that is the limit of its existence; and then there is no up or down; it would all run the same.

Mr. Butler: Oh, he doesn't mean that.

Mr. Turner: Isn't it, Your Honor, a question of amortization only that he is talking about? It is a question of

2194

[fol. 2354] whether or not it has been amortized. If it is amortized, it is out of the picture. If it is not amortized, then he claims a right to have the unamortized part considered in going concern value. I think it is simply a question of amortization, of the fact whether or not the amortization has been effected. If the amortization is completed, it is out of the picture. If the amortization is not completed, he claims it is in the picture.

Mr. Butler: You are probably a good witness, but unfortunately the witness does not say it.

Mr. Turner: Oh, he said it over and over. There is where I got it.

And thereupon a recess was had until two o'clock P. M. of same day. (Thursday, March 12, 1931.)

2195

[fol. 2355] Thursday Afternoon Session, March 12, 1931

And also—

B. L. Wheeler, resuming the stand for further cross-examination, continued his testimony as follows:

Cross-examined by Mr. Butler:

Q. Having reference to your statement No. 12 appended to your company's Exhibit No. 57, which is entitled, "abandonments of compressing station facilities prior to termination of normal operating life," I want to ask you a few questions. As I understand, these are not all of the compressor stations or all of the units that were abandoned, but those are used there for illustrative purposes.

A. I believe that those are all that had facilities that were abandoned prior to a full normal life. There may have been some that were not included, but it was intended to make that inclusive of all compressing station facilities abandoned prematurely.

Q. Well, these did not make up the $250,000.00?

A. No, that was illustrative of the condition.

Q. What properties did make up the $250,000.00?

A. The $250,000.00 was primarily an estimate based on those conditions. A computation was made of those amounts on statement 12, a discussion of which appears on page 69, and those actual facilities worked up in detail on the basis of proper weighted average, showed an unamortized investment somewhat in excess of $250,000.00.

2196

[fol. 2356] Q. That answers my question. These abandonments shown on statement No. 12 do produce the $250,000.00?

A. They produce somewhat more than $250,000.00.

Q. Do you have the original costs of those various stations shown in statement No. 12?

A. I think they must be in the working papers.

Q. You don't have them here?

A. I have all of the working papers. If they are included, they are here.

Q. See at recess if you can find those working papers?

A. All right.

Q. Now, how were those abandonments carried on the books? Obviously before abandonment they were in the capital account, were they not?

A. They should have been, yes, sir. I presume they were.

Q. After abandonment were they taken out of capital account?

A. I don't know.

Q. Were you interested in seeing how they handled it?

A. Only incidentally, because the value that inhered there at that date was based on the theory of their being prematurely abandoned, and not based on a mathematical book value that might have existed there remaining on that date.

Q. I don't care whether it was incidental or otherwise, but did you investigate how the company handled that on its books?

A. No, sir.

Q. In any one case?

A. No, sir.

Q. You don't know whether the company then charged that amount to any account?

A. No, sir.

Q. Weren't you interested in that?

A. Not directly, no, sir.

2197

[fol. 2357] Q. Were you indirectly interested in it?

A. I might have found out, but if I did it was incidental.

Q. You mean it was a mere accident that you found out?

A. No, in connection with the investigation of the other records I may have some of that data, but I did not go into it for the purpose of determining in any specific case what element of the account was remaining on the books.

Q. Let me put it a little differently. If your assistants had gathered all of the information and laid it before you to enable you to reach a conclusion as to this element of additional going concern value, you would not have required or desired the history of the account?

A. No, sir.

Q. What is the statement No. 11 appended to that Exhibit No. 57?

A. That is a partial list of abandonments of distribution system during a period of a year and a half. No, I believe I should have said six months there—that took place in the distribution system where the individual cost of the jobs involved was $500.00 or more. That is not an attempt to work out mathematically the loss which occurred in any individual instance, but is merely illustrative of the condition; only a six months' period is included there.

Q. Well, did you in your working papers work out the loss or the amount of going concern value that resulted from these facts set out in statement No. 11?

A. No, sir, they were just included as——

Q. As illustrative?

A. As illustrative of conditions.

Q. Well, those are distribution mains; I see you give the number of feet, the date of the original installation, and then you give estimated percentage of useful life aban-

2198

[fol. 2358] doned. How do you determine that?

A. That was determined in consultation with the representative of the company who had jurisdiction over the distribution system as to what under the conditions in each

instance there a normal life would be, and when it was originally installed, the percentage being just the difference between whatever that normal life might have been in each instance and the date of the original installation.

Q. Well, take the first one, Mansfield, 1,120 feet, installed 1917, estimated percentage of useful life abandoned. How did you reach that?

A. That is the result of a computation from 1917. It was abandoned twelve years later. I don't know without working it out backwards.

Q. Either backwards or frontwards suits me, so that you work it out.

A. I will have to go back to the working papers for those. I see in the papers on that item that that six per cent is a typographical error, and it should be 60 per cent.

Q. What page is that?

A. Statement No. 11.

Q. Tell me how you reached 60.

Mr. Turner: It don't show on mine at all.

Mr. Butler: It is on the first page. There are two of them.

Mr. Turner: Oh, I see. I have it.

The Witness: That assumes approximately in round numbers a normal life for that distribution system of 30 years, whereas it had only about twelve years of life, and it would be roughly only 40 per cent. used up.

Q. Can you run right down the column quickly on state-

2199

[fol. 2359] ment No. 11, under estimated percentage of useful life abandoned, and tell me what the assumed normal life was for those computations?

A. I will try to. They run from 30 to 40 years. There are corrective factors on some of those where there were salvage amounts and where some of it was used over again or reclaimed, according to those notations there. But roughly it is about 30 years normal.

Q. Really I am referring to this that don't have a salvage marked there. Do you have the sizes of those pipes there?

A. Yes, they are on the working papers.

Q. Give me roughly the first one, 1,120 feet. I am going right down.

A. That is one and one-fourth inch, one and one half inch.

Q. What kind, steel or what?

A. It is not shown here.

Q. 1090?

A. That is two inch pipe.

Q. 1360?

A. The order here is different.

Mr. Turner: It is reclaimed.

Mr. Butler: Yes, thank you.

Q. Turn down to 1040.

A. That three inch pipe.

Q. 150?

A. That is two inch pipe.

Q. 1030?

A. That is two and three inch pipe.

Q. Now, they probably nearly all run that. Have you any larger ones? Look through and see if you have.

A. Yes, there is some six inch pipe.

Q. Which one is the six inch?

A. No, that is not on the list.

Q. It is not?

A. No. On the second sheet, work order 8009 is four inch. 8053 is four inch, 8057 is four inch.

2200

[fol. 2360] Q. You don't find any beyond four inch?

A. No, sir.

Q. Now, with respect to these abandonments of distribution mains, and I speak about the ones where there was no salvage, it made no difference to you what the company did, whether they were taken out of capital account——

A. No, sir, not for this purpose.

Q. Whether they were charged to reserve?

A. Not for this purpose, no, sir.

Q. Depreciation reserve?

A. No, sir.

Q. You have already testified to going concern value that results and attaches because of a trained personnel. I ask you to turn to page 33 of this Exhibit No. 57. This may have been in the other exhibit, but I don't recall. But you stated there on the question of this personnel, that, "In various ways it promotes and fosters favorable relationships between it and its employees. It is undoubtedly

largely due to this policy that it enjoys such a relatively low labor turnover. There is an established list which provides certain allowances as compensation for necessary time away from work due to such causes as illness, accidents, and so forth. This schedule as of the period, 1929, provided allowances for such absences varying from a minimum of one week at full pay and one week at half pay for employees having one year terms of service, up to a maximum allowance of four weeks at full pay and seven weeks at half pay for employees having been ten years in service.

Similarly employees who suffer accidents and occupational disability are allowed compensation at specified rates. These not only comply with the legal requirements but are intended to reward meritorious service of employees de-

2201

[fol. 2361] serving special consideration. Where employees are required to perform other duty, the company makes an allowance representing the difference between the pay which they receive and the full amount of the salary which they would have received during the term of such other service."

How are those costs mentioned in what I have just read paid, are they a part of operating costs?

A. I should presume so, yes, sir.

Q. That is where you would expect them?

A. Yes, sir certainly.

Q. Do you mean to say that if out of operating charges these expenses were paid that there should be some resultant additional going concern value allowed because of that in a rate base?

A. Well, the going concern value that inheres there has no connection with how the charges may have been paid or shown on the books. I have already testified to that fact several times, the cost that may have been incurred there to give a satisfied personnel. And, of course, the turn over of labor resulted at a basic date in an element of value which is entirely apart from what the company may have charged in such expenditures on the books. They may have charged it all to operating expenses. Nevertheless there is an element of value there.

Q. Would that hold true with what you call establishment of operating record forms and developments of methods and operating procedure, $120,000.00?

A. Yes, sir. We are not trying to get a historical cost of what they did. We are trying to find out a value at a basic date.

Q. But we are trying to get a fair and honest figure, aren't we?

A. Yes, sir, that is what we are trying to get. We are anyhow.

2202

[fol. 2362] Q. You have some doubt about the rest of us?

A. No, sir, I have no doubt about anything. I said, "we" inclusive.

Q. Now, Mr. Wheeler, these establishments of operating record forms and developments of methods and operating procedures all developed from expenditures that were paid out of operating charges?

A. Presumably the most of them may be; some of them might be capitalized.

Q. Pardon me. Not likely.

A. It would be a matter of indifference to me whether they were or not, because I am not trying to find the historical value as of that date. I am trying to find out what value existed, irrespective of whether the company properly or erroneously charged certain cost to capital or operating expense.

Q. You mean you are indifferent as to how they were charged, because if they had been charged correctly, they would have been carried to capital?

A. No, not necessarily. You can have a value at a base date with all those costs properly charged to operating expenses.

Q. How should they be charged, what is the normal accounting practice?

A. As I have attempted to say, I think they were very properly all charged to operating expenses.

Q. Now that is true of refinements of methods and operating procedure that you speak about, for which you ascribed no amount?

A. Yes, sir.

Q. Again now you would not be concerned as to whether the costs were paid normally out of operating charges?

A. Not in an attempt to find the value at a certain date, no, sir.

Q. Well, this going concern value in respect to these two

items that I have been talking about is something that is increasing as you refine and re-refine?

2203

[fol. 2363] A. Up to a certain point, yes, sir. I can conceive that after a stabilized condition exists it might no longer increase.

Q. But assuming you have not reached that point, even for this year in respect to this condition these costs are being charged and paid as operating charges, yet you would not hesitate to have that expenditure to give an additional going concern value?

A. Not if it made a value. It has nothing to do with what has been shown on the books. It might have been erroneously capitalized, and yet there might be no value. So it would work both ways. Merely because they might have shown an expenditure of capital cost would not result in a value.

Q. I am talking about this normal thing that you are describing for this current year paid out of operating charges and yet improving your operating records and forms and refining your methods and operating procedure?

A. Yes, sir.

Q. In other words, the better you carry on your business and the longer you better carry on your business, even though the costs are paid out of operating charges, the more will be the amount of going concern value?

A. The greater will be the value of the whole property, the intangibles.

Q. I was talking about going concern value?

A. Specifically going concern.

Q. Such as we use in a rate case?

A. Such as we use in a rate case or such as we use for any other value.

2209

[fol. 2364] Commissioner Bricker: Just one question. In discussing the going concern, Mr. Wheeler, and in ascertaining the amount which should be allowed for going con-

2210

[fol. 2365] cern, did you take into consideration that part of the business is controlled as to price and part of it is a non-utility business?

The Witness: I don't know that I gather exactly what you mean there.

(Question read.)

The Witness: No, not specifically.

Commissioner Bricker: That did not enter into your consideration or in any way influence the amount or the percentage allowed?

The Witness: No, sir.

Mr. Turner: May I ask a question on that subject, Your Honor?

Commissioner Bricker: Yes.

By Mr. Turner:

Q. Would your valuation of the going concern have been the same whether the company's rates are regulated or not?

A. Oh, yes. That is the whole basic theory. It is not to determine a rate subject to regulation or some non-utility value if that is what you mean. It would be just the same reason.

Q. The same answer would have occurred for a non-utility?

A. It would be just the same answer.

Q. The same answer would have occurred for a non-utility?

A. Yes, because we are determining value, irrespective of the specific purposes for which it is to be used.

By Commissioner Bricker:

Q. In a non-utility, of course, your going concern value is determined by the price you can get for your product?

A. Yes, because the rates are not regulated.

Q. Yes.

A. But I have mentioned several times here that this 2211 [fol. 2366] is the so-called rate base, which is the value, and we have not gone beyond that to say how much the rate ought to be on that rate base.

Mr. Turner: Is Your Honor familiar with Edie on Economics? Edie has a page or two on a distinction between going concern value and good will. Edie says that going concern value is something that inheres in the property put together, doing a business; that good will—and this is the theory accepted by leading accountants—good will is the

ability to make more than the average return on the money, and they figure good will by first taking off what would be the—capitalize good will by first taking off what would be a reasonable return on the capital invested in the business and capitalizing the difference.

Commissioner Bricker: The surplus over the normal business?

Mr. Turner: Yes, but under normal business that is going concern value. Now, Edie has a page or two on that that would be interesting.

Mr. Butler: The thing I had in mind—that is the Wisconsin Economist?

Mr. Turner: Yes, he is a Chicago University man, I believe.

Mr. Butler: Under your theory of the case we have no jurisdiction over the gate rate?

Mr. Turner: That is correct.

Mr. Butler: You might as well make that 65 cents as 55 cents. It is wholly within the control of the company, provided there is no regulation, there is no competition, to keep the rate down.

2212

[fol. 2367] Mr. Turner: That is the West Ohio Gas Company case, and, as you know, I was on the other side of that case. And we struggled our best to show that this Commission did have some control. Mr. Calland here spent a good deal of time on that. And the courts said no. Now, if the Ohio Fuel Gas Company were not related to The Columbus Gas & Fuel Company through the ownership of its stock by the Columbua Gas & Electric Corporation, I would say that we would not have exhibited one iota of evidence on The Ohio Fuel Gas Company.

By Mr Butler:

Q. Now, Mr. Wheeler, with that discussion and these various elements entering into it, did you give any consideration to the fact that part of this property is non-utility property in fixing the amount in going concern value?

A. No, sir.

Q. You did not?

A. No.

By Chairman Geiger:

Q. Did you, in fixing the amount of going concern value, consider anything that might be denominated good will?

A. No, sir, not in the commercial sense.

Mr. Butler: In addition to what Mr. Turner said, I always had in mind the definition of good will, that it was going back to the old stand, and in the case of your company there isn't any other stand to go to.

Mr. Turner: That was the old definition that I think has rather been abandoned. You will find that in the older books, the tendency to revert to the old stand, but the newer economists and accountants all put it on the basis of the ability of that concern to earn extraordinary dividends.

Mr. Butler: That is not the legal definition of good will.

2213

[fol. 2368] By Mr. Butler:

Q. Mr. Wheeler, I think there are a number of items

2214

[fol. 2369] of which I can make a little hurried disposition. For example you attach $700,000.00 in this exhibit as accruing to going concern value because of attached and trained personnel. While I think you stated rather clearly before, but I do not want to misunderstand you, the cost of attaching and training personnel has been paid out of operating charges through the years?

A. Yes, sir.

Q. And that is true of attached business, isn't it?

A. It may not wholly be. New business expenditures may have been erroneously charged one way or the other. Strictly new business expenditures may have been capitalized.

Q. Well, which did you consider was happening?

A. As to whether or not they were, was not material. We have got to get the amount of them in order to develop the factor. But I can only reiterate for those elements the same as the others, that, in our opinion, it is immaterial whether they were correctly or incorrectly shown on the books from an accounting standpoint so far as the element of value attaching to the property at a given date is concerned.

Q. But I believe you understand probably better than any of us, and I think you have very fairly and clearly said

it, that since the advent of the Columbia Engineering & Management Corporation in '27, there have been, for example, considerable increases in expenditures for new business, for attaching business?

A. Yes, sir.

Q. That is true both of the local company and the Fuel Gas Company?

A. Yes, sir.

Q. And don't you know that those expenditures have been charged to and paid out of operating?

2215

[fol. 2370] A. As I said before, it would be immaterial.

Q. Don't you know it is a fact? I am talking about the fact now.

A. It is my understanding that a large part of them were. I would not want to say that I know it to be the fact that all of them were. I believe a large part of them were.

Q. Now, take this current year, I assume that now they are continuing the program. Let us assume it anyway—making large expenditures. Expenses are met out of operating charges. At the end of the year there will be, as you think, or as we will assume it, a considerable increase in attached business, because of those efforts and those expenditures.

A. There should be, yes, sir.

Q. Now, notwithstanding that this comes out of operating charges, you still would find out of this year's operations an additional something to put into your going concern value?

A. At the end of they year the property would be more valuable. Yes, sir, I would.

Q. Now, take your adjustment of physical property, that is true, isn't it? Wasn't the majority of your adjustments of physical property charged to operating?

A. Yes, sir, that is just the same answer and the same condition.

Q. In what terms do you think when you, as an operator in a company where the rate is controlled, for example, add $50,000.00 to your operating charges and with that adjust your physical properties and then work out some additional sum to put into your rate base. What sort of thinking leads you to that?

A. Well, the theory is that we are not attempting to get historic cost. At the end of the time when that $50,000.00 has been expended, it may have resulted in an increased

2216

[fol. 2371] value to some of the property, and on the replacement principle that is an additional element of value at that time. If the company was going to sell its property to an outside operator at that date, they would probably secure a greater amount for the property than the year before, and he would not determine whether or not they had charged those $50,000.00 to operating expenditure or to capital. He would want to find out whether the value was there before he bought and paid for it, and it might be that 10,000 of that had resulted in that much more improvement and value to the property.

Q. Do you think there is some relation between what the willing purchases would pay for this property to a willing seller and the amount of this going concern value that he would include—and the going concern value that should be put in for a rate base?

A. Oh, yes, entirely so, a very direct relation.

Q. Mr. Wheeler, you have allowed in this study of going concern value in company Exhibit No. 57, $8,300,000.00 for interest or return unearned during business development period. Does that allowance depend at all upon the historic fact as to just what was paid in the way of dividends or what return did come to the company?

A. You are referring to the $6,300,000.00?

Q. I thought it was eight. I am getting old and blind. Two millions means nothing to me any more.

Chairman Geiger: What page is that?

Mr. Turner: It is page 3. That looks like eight on mine. It is a six, but it looks like an eight to me.

Chairman Geiger: On which page?

Mr. Turner: 53—page 3, and 57.

2217

[fol. 2372] A. Will you read the question?

(Question read.)

A. No, sir.

Q. That is necessarily an estimate, isn't it?

A. No. Well, I would say yes it is an estimate, but that is largely based on actual computations as developed in the

report. It is not the same sort of an estimate as the other element that we were speaking of this morning, because it is an estimate for the total property based upon the computed amounts in the examples that were used.

Q. Well, you took two pipe lines and made a study, didn't you?

A. We took facilities in four of the larger cities, distribution facilities in thirteen of the smaller sized towns, two of the large transmission lines, and developed separate factors for those, gave a weighted average and applied it to the total facilities of the company. It is naturally within certain limits an estimate, but it is based on those computations of the different types of facilities in the different systems of the company.

Q. In respect to production and transmission, about which we are particularly interested here, and not retail distribution, what studies did you make?

A. The transportation facilities are based on studies of what is termed the E. Line, referred to at the bottom of page 24 and on the following pages, where the development is made, and the so-called Cincinnati line referred to in the same pages.

2219

[fol. 2373] Q. Let me see. Assume that what you do not grant, that The Columbus Gas & Fuel Company is making such a return that it can enlarge its distribution and it does add a very considerable amount of distribution at very considerable cost, which will not be fully utilized for three or four or five or six years, but assume that the company still continues to make a proper return on all of

2220

[fol. 2374] its property, including that particular additional distribution system. Would you then carry something additional into going concern value?

A. I would not use that data, either carry it or not carry it. If your assumption is correct there was an additional value there, and if that value was there, then the company's return was either inadequate or excessive, but the value is not determined in this case from the amount of return in percentage, but is determined from the amount of physical facilities, not whether the use of the facilities resulted in an excessive return or an inadequate return, or whether they were used to their normal utilization year

by year. If it is shown that that line had been physically used in the first year to its full normal output, not necessarily actual capacity, and its use did not increase year by year, there would have been no additional element of value such as we have here determined, irrespective of whether it had earned an excessive return or an inadequate return.

Q. Then whenever the natural gas utility runs ahead with its transmission and distribution system and does its work by giving a capacity that is not now used, but will not be wholly used for three or four years, and which through the three or four years is gradually used, you gain out of that an additional going concern value, although the company might actually during all of those years have received a fair return on all of its property and assets, including this particular work?

A. Well, it did not receive an adequate return if that condition existed, because it had unearned interest on that excess capacity during that period.

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[fol. 2375] Q. Oh you just ignored my question?

A. I try not to. I do not understand the assumption that it must have earned on its value if the value did not exist.

Q. But upon the capital value, the cost of putting it in. Let me re-phrase it.

Chairman Geiger: Make it a little shorter, Mr. Butler. You have got it a little too long. Take it in sections.

Mr. Butler: I think that is a just observation.

Q. Here is this local company, The Columbus Gas & Fuel Company. Assume that it is making an adequate return and will continue to make a fair and proper return on all of its property, including the addition that it is making this year to carry gas out to a small community which it assumes will become a large community and which actually will become larger; the capacity of the lines not fully employed must be taken up through the years. Now, do not forget that this cost has gone into capital charges and that the company is getting through these three or four or five years adequate return on all of its property. Now would you work out some additional going concern value because of that installation of facilities?

A. It is still rather a long question.

Q. Yes, of course.

A. But I would work out an additional element of value entirely irrespective of the return, if the physical condition existed that it had excess capacity there on which there was unearned interest, in exactly the same way.

Q. I have given you the conditions. I have told you that this year we carry out this addition into a small community, and these facilities are now not wholly used and they will be used only as this community grows during the next three

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[fol. 2376] or four or five years; now, what are you going to do about that?

A. The only way I can see your question there is that they are not earning an adequate return. But if you assume they are earning it on all this, they are earning an excessive return. But I am not attempting to determine the rate. I am attempting to determine the value.

Q. Am I right in assuming that in this case I have given you you would work out an additional going concern value?

A. Yes, entirely irrespective of earnings.

By Chairman Geiger:

Q. Let me simplify that thing so that we can understand it. We will assume that we put up an office building. The first six months a certain portion of that office building is rented and gives a return, and the next six months an additional portion of it is rented and gives a return, and at the end of the year all of it is rented. Now your idea is that during that time that that office building would be filling up, there is certain vacant space there that is bringing in no rent, and you should take that into consideration and add it as a part of the going concern value, in that you have built an office building large enough to accommodate more tenants than you have until the end of the year?

A. I think that is very properly stated from the standpoint that I have in mind that it has unearned interest on that vacant space.

Q. Just the same as unearned rent on vacant space; you have built an office building beyond the accommodations necessary for the tenants offered at any period, and as it grows full and all of the space is occupied, you get rent from all of it?

A. Yes, sir.

2223

[fol. 2377] Q. During the time you are acquiring tenants, there is an income that you should have?

A. Yes, sir, for the same reason—may I just elaborate one thought there—if you could build that building so that you could take your tenants on the first, second and third floors as it went up, you would not have any such condition. But you don't get your first tenant until the entire building is completed, and you gradually accumulate tenants; you don't get them all at the same time. So during that time you have lost interest on that excess space.

Q. That is the amount that goes in to make up the $6,300,000.00 in this case?

A. Yes, sir.

Q. Is that correct?

A. Yes.

By Mr. Butler:

Q. But your whole building would be in your inventory and appraisement?

A. Physically, yes, sir.

Q. And taking Judge Geiger's question it would not change your opinion a bit if it were a fact that the company had paid during the time the building was filling up a full and adequate return on all of its property, including this building?

A. No, sir, but if that condition were so in a building, then the space that was rented was being rented at too high a rental per unit.

Q. Well, I need not disagree with you, but I wanted to know whether it made any difference.

(No reply.)

By Chairman Geiger:

Q. Well, assuming that that is correct, how did you arrive at the figure $6,300,000.00? Is that a guess figure or an estimate?

A. Oh no, as I attempted to explain, that is a weighted average for the physical facilities in the amount of five and one half per cent.

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[fol. 2378] Q. Now, returning again to the illustration of the building and assume that building is a building be-

longing to a public utility, a telephone company, for instance, and only a portion of it is used; it is overbuilt; would you say that that portion which is not used may be justly considered a property not used and useful, but be put into the classification of used and useful property as it was actually occupied?

A. That depends on the building. I cannot make a building exactly comparable with a pipe line.

Q. We are able to comprehend a building.

A. On the building you may have a part of that building that is not used and useful, because you may be occupying certain floors and the rest of them may be wholly excess.

Q. But the excess capacity of the pipe line is used and useful, but not used and useful to a hundred per cent of its capacity?

A. In my opinion it is used and useful, but its capacity is not fully used. What I mean there is that I cannot conceive of dividing the pipe line into a portion used and useful and another portion vacant, in the same way that you do the building.

By Mr. Butler:

Q. Well, you would put your whole pipe line then into your capital account right away?

A. Yes, sir.

Q. Even though it took four or five or six years to come to its complete and full capacity?

A. That is what nearly always happens. Usually it takes four or five or six years.

Q. Well, how would the company lose anything if in the meantime it had been paid a full return on all of the property, including this pipe line?

A. In the same way that I have attempted to state in the case of the building. If it is paid a full return, an

2225

[fol. 2379] adequate return, under regulation, on all the cost of the pipe line, then the unit rate has presumably been too high and should be reduced.

Q. Why? Why, man, you say it should be carried into your capital account, and if you were adjudicating a rate, wouldn't that capital account be property, be inventoried and appraised?

A. In the same way that the building is.
Q. Answer my question.
A. I don't see how that can be answered yes or no.
Q. All right.
A. The entire pipe line is in the appraisal of physical property, yes, sir.

Mr. Turner: Would the entire building be in the appraisal?

Mr. Butler: Oh no now, Mr. Turner, please. I am talking about this pipe line.

Mr. Turner: I am glad you told me, because I didn't know.

Mr. Butler: We are getting along famously.

The Witness: Yes, the entire pipe line would be in the physical appraisement.

Q. Yes, and if you had the first year a rate case, you would inventory and appraise that pipe line?
A. Yes, sir.
Q. And you would ask the Commission to adjudicate a rate that would include it?
A. At that time, yes.
Q. And suppose it did adjudicate a rate that included a full and proper return would you then expect, because of these other conditions, to work out an additional going concern value because of that?
A. If they gave a unit rate which allowed a full return on the entire line and only part of the line was used, the rate would not be proper from a unit basis.

Chairman Geiger: It would be too high?

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[fol. 2380] The Witness: Yes.

Q. If you carried it into capital, as you said a moment ago and you inventoried it and appraised it, how could the Commission ignore it?

Mr. Turner: I am willing to be bound by that.

Mr. Butler: All right, Mr. Turner. I notice in the pinches you get busy.

Mr. Turner: I have an illustrious example at the other table, who is not smiling for the moment.

Mr. Butler: No, my humor has left me.

Q. Mr. Wheeler, you had another pipe line as part of your study. What pipe line was that?

A. The so-called Cincinnati line built in 1905.

Q. From what place to what place did that run?

A. The way that is shown on the map accompanying the report, I think from the Wheeler's Station.

Q. From the Wheeler's Station?

A. Yes, sir.

Mr. Butler: Oh, I thought maybe he meant the one that ran north of Columbus. Do you know, Mr. Turner?

Mr. Turner: No, I have got to get Mr. Phillips to tell me.

Mr. Phillips: The old Ohio Fuel line ran between Linden Station north of Columbus and Cincinnati. I think that is the one referred to.

Mr. Butler: You would rather judge that that is the one he has in mind?

Mr. Phillips: Yes, sir. That is now Z-50—18 inch.

The Witness: That is correct—from the Wheeler's station.

2227

[fol. 2381] Mr. Butler: No, not from Wheeler's Station.

Mr. Turner: No, not from Wheeler's Station. That don't go from Wheeler's Station.

Mr. Seyffert: What line are you talking about?

The Witness: The Cincinnati Line.

Mr. Phillips: That line goes to Cincinnati now. It used to go to Muncie, Indiana.

The Witness: It seems that that is only from Columbus and not from Wheeler's Station.

Mr. Turner: That is 1905, we are talking about—not now.

Q. You made no study of how that fitted into the past history of the Fuel Gas, did you?

A. No, sir.

Q. Nor how it immediately affected the earnings of the Fuel Gas?

A. No, only as affects physical utilization and the deliveries from it and the amount of expenditure made for it.

Q. And the discussions you and I had in respect to the other pipe line would in principle apply to this?

A. Would be identical, yes, sir.

Q. Now, how did you reach into the production system and get a going concern value?

A. As regards the production system, the statement is made at the bottom of page 26 and the top of page 27——

Chairman Geiger: Of what exhibit? 53?

Mr. Turner: 57.

The Witness: 57—that there was no specific date available that could be utilized as a factor, and that, having in mind the fact that the excess capacity portions of the distribution system had been shown to be 3.7 and 5.38, and in 2228 [fol. 2382] the case of the transmission system, 8.7, it was considered reasonable to take a minimum of only one per cent. as the excess, as the probable excess capacity portion of the production system. That one per cent. was used and is purely an estimate for the production system only.

Q. How much did that add to this going concern value in dollars? I am disposed to give away sums if they are not too large.

A. Of the $6,300,000.00 that would amount to something over $350,000.00.

Q. $350,000.00? Now, you say your production system, is made up of gas well construction, gas well equipment, field line equipment; what percent. does gas well construction amount to?

A. I am sorry to take up this time——

Q. Maybe someone could give it to us?

A. I have that specific figure, because I used it in this allocation.

Q. I thought maybe Mr. Seyffert has it?

A. If he has all right. What is your question?

Q. How do you divide up this production system valuation?

A. The figures I have here show the production system represents about 56 per cent. of it, gas well construction; of the production system, 31 per cent. gas well equipment; five per cent. field line equipment, and eight per cent. all other accounts in that system.

Q. You mentioned three here, but it does not matter. Now tell me in making that study of interest or return unearned during business development in respect to this production department, did you take into consideration just

how during the years the Fuel Gas Company secured its gas?

A. No, not specifically.

Q. Did you know that it produced only part of its gas?

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[fol. 2383] A. Oh, yes.

Q. Did you know that it purchased part of its gas?

A. Yes.

Q. Did you know of the purchased gas part came from Ohio and part from West Virginia?

A. Yes, sir.

Q. By what method did you work out now the excess capacity of these Ohio wells belonging to the Fuel Gas Company?

A. Well, I have said that that one per cent. was an estimate on the cost of the production system, based on the development of the other factors, and it was simply taken at that figure as being a representative low figure, much lower than any of the other systems.

Q. Why one per cent.? Why not one half per cent.?

A. Possibly it might have been one-half per cent., possibly it might have been one and one half per cent.

Q. Half a per cent. would save us $175,000.00, wouldn't it?

A. Yes, and a half per cent. the other way would have added that much on.

Q. Is it your conception of this that $175,000.00 doesn't mean much either way?

A. No, sir, but that is admittedly an estimate, based on judgment, for that system.

Q. How do you know that there should have been any allowed?

A. Mathematically you don't know, but presumably, in view of the other developments, there must have been some excess capacity for that system.

Q. Well, why?

A. Well, just because that is the way the system develops. It is hardly conceivable that every part of the gas production system could have been fully utilized at the time it was acquired.

Q. Do you know how during those years they would

2230

[fol. 2384] govern the supply? If there came an oversupply, would they shut down their own wells or cease taking from other people?

A. They would have had the investment in their own wells, but this is only during the initial periods of operations.

Q. You don't have all of the wells in the initial period?

A. No.

Q. Do you know over how many years they have been drilling these wells?

A. No, not now.

Q. Don't you assume, especially with the Columbia Engineering & Management Corporation in charge, that there is a very careful determination as to what will be used and what will be necessary?

A. Yes, and in the development of the excess capacity portions of the other systems, it has only been in the first four or five or six years, because beyond that, although there may be an unused capacity, we do not consider it at all as representing unearned interest in that time; it is simply a condition that in building those lines and building those facilities in their initial stages, it is necessary to build them beyond their first utilization.

Q. Now, that is interesting. You mean to say that this going concern value about which we are speaking, interest or return unearned during business development, is attached to only that property that was installed during the early history of the company?

A. No, no, but the element of unearned interest there is only computed on the basis of the excess capacity during the first few years of its operation.

Q. Of course, but you get it, you get the amount permanently, into your going concern value?

A. Yes, sir.

Q. You never lose that anywhere, do you?

A. No.

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[fol. 2385] Q. Do you——

Mr. Turner: He said no.

Mr. Butler: I know he did. I knew it before.

Q. Well, if you have excess capacity now, don't you determine going concern value in the same way?

A. If it is a new facility within the four or five year period that you have constructed undoubtedly.

Q. Then that goes on, even though the Columbia Engineering & Management Corporation——

A. Yes, I don't believe they can develop a theory of building pipe lines so that they will be completely utilized the first year.

Q. I am talking about these wells. I am very much interested in that. I want to know how you worked out the one per cent.?

A. I have attempted to say that that one per cent. on that part of the system is purely an estimate.

Q. Would I do you an injustice if I suggested that it might be what somebody has already suggested about something, an educated guess?

A. No, I think it is an estimate based on the best possible judgment.

Q. What did you think about the wells? You made no study of the various supplies of gas?

A. Well, as I said in some of the other estimates, we do have practical gas men in the organization who are familiar with that condition and with the expenditures necessary. One member on the staff is operating a gas company. And this represents the judgment of others as well as myself as to what that factor should be.

Q. Is this judgment of yours based on their judgment?

A. It is a combined judgment.

Q. Did you rely on their judgment to make yours?

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[fol. 2386] A. That was an estimate placed in there after consultation.

Q. Now, if that is the best answer I shall leave you there.

(No reply.)

By Chairman Geiger:

Q. Now, let me ask you—I don't get it quite clear in mind—the theory on which you fix your value is that you are theoretically reconstructing this physical property; you are theoretically reconstructing its physical property as of a certain date?

A. Yes.

Q. You theoretically reconstructed its going concern value, which includes the element of attaching business and completing personnel in order to complete the entire going

unit, and that is all done as of December 31, 1929. Now, if you ask for an allowance for attaching customers and that is allowed to you, how can you say there is any unused capacity, because you have asked for a compensation that pays for attaching customers, and theoretically—and it is all theoretical—you have a constructed unit, both physical and with attached business, complete on December 31st, 1929? Now, where is there any room for saying that if all your customers are attached and you have been paid for them, there is any unused capacity? I can't see how both can be present at the same time?

A. I don't think there is that conflict. Of course, you have a theoretical condition of producting it instanter, which is not a practical factor.

Q. Leaving that aside, you ask for compensation for attaching your business. Therefore your value is the physical value plus the attaching of the business, which would mean, as I see it, that your capacity for supplying the business is all utilized and has been used?

A. No, I do not think that is so.

2233

[fol. 2387] Q. You don't think it is so.

A. No.

Q. Why?

A. We have only taken the attached business that existed at June 30th, 1929, or whatever the date is. They may have been overtaxed or they may have had a great deal of capacity unused.

Q. You mean that they still may have had an unused capacity in addition to the capacity they are not utilizing for the present consumers?

A. They may have had.

Q. How do you know there is?

A. On the attached business we only take the attached consumption that existed at that date.

Q. But you are asking to be compensated for attaching all of your business. That would mean you got all of your customers on, and that would mean presumably that you were utilizing then your capacity, because you have all of your consumers on?

A. Yes, but you may not have all of the consumers that the capacity will take care of.

Q. That is true, but is there any evidence of it?

A. Well, there isn't any evidence against it; unless we assume that the plant is operating to its maximum capacity, that is not so.

Q. What is the plant operating now? Is it operating at maximum capacity?

A. I don't know, but as of this date it was not operating at maximum capacity, because the business did continue to grow. That was two years ago.

Q. Then couldn't you find out how much that unused capacity was by determining how much it was used two years ago and then adding to it what is now included?

A. Yes, but that figure might throw this far in excess of

2234

[fol. 2388] that amount, because if they had excess capacity of plant that had been built ten or fifteen years ago, I would not consider that an element.

Q. I see. You have stated on page 2 of Exhibit 57, and repeated the same statement on page 1 of Exhibit 63, the following, "In general no elements of value have been considered which are in the nature of unearned increment, that is, which result from fortuitous circumstances. We have taken account only of elements resulting from real effort of the company or sacrifice of money in the development of the territory." That is correct, isn't it?

A. Yes, sir.

Q. I don't know just what you mean by "fortuitous circumstances." You say you have taken account of no elements which result from fortuitous circumstances?

A. Just something that was unexpected good luck. In other words, if they had built in there, and after building to some town, there had been a gold boom or some such condition, or a boom of unexpected things that had nothing to do with that construction, and they might have benefited very greatly, that would have been a very decidedly fortuitous circumstance.

Q. You did not take into consideration a gold rush in Ohio?

A. Anything that would be beyond ordinary conditions, anything which just happened.

Q. You do not think that the unification of the property, for which you charge $4,500,000.00, is what might be a fortuitous circumstance?

A. No, sir.

Q. That is not an accidental condition?
A. No, sir.

Chairman Geiger: All right, anything further, gentlemen?
Mr. Butler: I should like very much to adjourn now. I am very tired, and I should like to begin at 1:30 tomorrow.

2291

[fol. 2389] F. H. Lerch further testified on cross-examination:

Q. All right; if it should develop that in the construction, the drilling of some of these gas wells which you have endeavored to appraise, the construction costs were absorbed and paid as a part of the current operating charges, would you still carry that value depreciated into your appraised value for rate making purposes?

A. Yes, in the valuation of estimated cost of reproduction new and less observed depreciation of the physical property as of a date certain.

Q. And even though it was the practice of the company to absorb them and pay them out of operating charges, you would still put them into the rate base?

A. That would not make any difference, the value would be there just the same, regardless of how you paid for it; the well costs just as much.

Q. Well, that principle, if I understand your theories, holds in respect to your intangibles; take going concern value, you attach going concern value to certain things and that is not changed in your mind even though the expenses connected therewith have been always paid out of operating

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[fol. 2390] charges?

A. That could not affect the value.

Q. Why not?

A. Because if that is taken as the measure of the value it can not possibly take the value away from it. The value is what we are talking about—the value of the item.

Q. Well——

A. And you are using that, that expenditure, as a measure of, or some criterion of that value; how in the world, because it was paid from this dollar and not from that dol-

lar or that dollar, reduce that value? I can not see. It sounds specious to me.

Q. It sounds suspicious to us. Mr. Lerch, take the cost of attaching the business; an attached business is one of the elements of your conception of going concern value—clearly so, isn't it?

A. I would subscribe to that, yes, sir.

Q. Well, now, the expenses of attaching business—take the current year—are paid out of operating charges—properly paid, aren't they, out of operating charges?

A. I am going to answer no, because you do not pay things out of operating charges; you pay them out of the revenue of the company. You may call them operating expenses if you want to. There is no difference whether you take them out of revenue and call them operating expenses when you pay the money as a salary or in the payment of a bill than if you assess the stockholders and got the money from them and paid it out and capitalized it. They don't get that money, you understand; the stockholders can not take it twice; they choose to pay for it and get something for it—get some value for it. Personally I can not see the argument of paying for things out of operating expenses

2293

[fol. 2391] and saying that that is a reduction or a destruction of value; I cannot see that at all; because to my mind it is not, and I do not see how it can be to anyone's mind.

Q. But, Mr. Lerch, take your local company here—and after all, this local company is asking for some new rate, and there have been studies presented here on the operating side; on the costs which must be paid out before there is any return there is included the cost of that department of attached business, and many kindred departments, for that matter. Now the Commission accept that and they finally determine a rate based upon what they find the rate base to be and a proper return and depreciation and all that, and those operating charges, including this particular cost of attaching business; now that goes on for two or three years; your stockholders have had a proper legal return and the——

Mr. Turner: When? Are you talking about the local company? When?

By Mr. Butler:

Q. (Continuing:) And the operating charges have absorbed and paid the cost of attaching business. Now they come in a few years to another rate question and the Commission are again called upon to fix a proper rate. Would you say that under those circumstances you would carry into the new rate base through an amount for working capital something that had been derived from the expenditure of money in that department which had been paid during the years as I have said?

Mr. Turner: Objection—wait a minute now. If that is a theoretical question and assumed facts, all well and good, but if you are talking about the local company, we object.

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[fol. 2392] Mr. Butler: I very clearly made it an assumption, Mr. Turner.

Commissioner Geiger: I thing that is fair enough. He can answer if he can.

Mr. Turner: I am not objecting if it is an assumption but I object if it is the Columbus Company he is talking about.

Mr. Butler: Mr. Turner, I have said it is an assumption.

Mr. Turner: Well, then there is no objection.

The Witness: You said working capital; you mean going concern?

Q. Yes.

A. As I see going concern it is an intangible value which attaches to the business as a whole. Now one of the things or the factors which contribute to making the business a going concern is the fact that they have attached business to it. Now, as a measure of what that value is we form some opinion by using the cost that the company has been put to in attaching this business and we arrive at a value. We have not done anything to the costs previous at all except to use them as some method of a valuation. The value has been contributed by the stockholders and certainly not by anybody else. It is the company's money that was expended and whatever value was created was created by the company's money.

Q. But don't you realize that the company was allowed that return and that amount of money because it had certain operating charges which it claimed and which the

Commission allowed and which included this particular expenditure?

A. It included that expenditure but we did not use that

2295

[fol. 2393] expenditure and say that that expenditure is going concern value. We said that that expenditure is some measure of this intangible value; it is not the summation of all of these things.

Q. But you say that the results that flowed from the expenditure of that money finds its way or find their way into your estimate of going concern value?

A. Yes, sir.

2306

[fol. 2394] And also—

F. H. Lerch, recalled as a witness for cross-examination, continued his testimony as follows:

Cross-examined by Mr. Butler:

Q. Mr. Lerch, I have been advised that in the United case before the Commission you testified first May 7th, 1929, having been recalled several times, and that your final testimony in that case before the Commission was March 13, 1930; is that right?

A. I believe so, if that is your information.

Q. That is what they advise me.

A. All right.

Q. You thought last night that you had not been unwise enough—those are my words—to put dry holes into going value. I want to read to you what I assume is correct

2307

[fol. 2395] from your testimony of May 7th, 1929. You were being examined by your own attorney.

"Question: You said the dry holes drilled by this company were an element of value of its plant. Did you take into account the fact that dry holes are paid for out of operating expenses?" I should say you were cross-examined by Mr. Scott. I can see that I am in error right away. But, going ahead;

"Answer: I have not included in the valuation anything for the cost of dry holes, and I am basing an element of

value upon the knowledge obtained from the drilling of dry holes.

"Question: You included that as part of the going value?

"Answer: Yes, sir."

Q. Is that correct?

A. I do not think that is contradictory of what I said yesterday, because yesterday you were questioning me about the amount of going concern value that had been included in this case, and I said that, as far as I could tell from reading Mr. Wheeler's Exhibit or in discussion that I might have had with him, there was no reference made to that particular element. Now, I might not have chosen my language as carefully as I should, but I think that is right. Now, if I am fixing myself a going concern value or discussing a going concern value, as we did in the United Fuel case, I assumed or used a straight ten per cent as my estimate of going concern value, and I used that, taking into account all of the factors which we could not properly invaluate by some mathematical conclusion. If I were fixing going concern value in this case on a straight estimate basis, as I did, or testifying to the presence of going concern value in the United Fuel Gas, I would consider that

2308

[fol. 2396] a reasonable factor to have in mind in fixing a percentage.

Q. You would want to know how many dry holes?

A. I would want to know what the effect of dry holes drilling was in the development of the property, yes, sir.

By Chairman Geiger:

Q. Now, wait a minute. What do you mean by the effect of dry hole drilling on the development of the property?

A. Dry hole drilling has the effect of delineating the producing areas in which gas is found. It has the effect of permitting the company to abandon property that is clearly wildcat or has proven non-productive property, so that they do not have the expense of carrying it any more. It gives you an idea of any particular condition existing within the area in which gas is being produced, and all of those things are of tremendous importance to the operating officials of the company.

Q. You mean they are the pioneer explorations which develop the lack of gas in the strata below a particular territory?

A. They do that.

Q. That leads you to abandon that territory or the wells in that territory?

A. That is one of the principal reasons.

Q. Or at least it assists you in your judgment?

A. Yes, sir.

Q. Now, one more question as to practical gas drilling. Can you tell when you have struck a dry hole how far away that would determine the character of the land or of the producing sand?

A. No, you couldn't tell that.

Q. That is, you might have a dry hole at one place, and within a hundred yards of it you might have a producer?

A. That is possible.

2309

[fol. 2397] Q. Then how and what effect would it have in aiding you in the development of your territory when it does not have a great deal of effect upon your judgment as to the productive sands that may lie below a new point where you wish to sink a new well?

A. It does have a very strong effect on your judgment, but it does not tell you where you could drill a well inside a producing area, we will say, at which you could get a producing gas well. But it does tell you, you cannot go beyond that point very well and get a gas well. Now, they are prospecting for gas all over the country. Take any well defined gas field. Take the Monroe field. I will assume that for example because it is the field I am most familiar with in the past two or three years. We have an almost exact proven area, proven by dry holes. Now, everybody is trying to find gas further away from that proven area, say five miles away or six miles away. They are trying to see whether they can go deeper. These dry holes outside of the proven area show the sub-surface situation and give an idea whether they will have to go 4,000 feet or 6,000 feet to get the same strata that they get in the producing wells, and that is going away from them in the dry holes. We know we are not going to buy territory or carry territory outside of that producing and proven area.

Q. I see. I have your idea.

A. That is my reason for saying dry holes are of such real importance to the company. A producing well is, of course, more important, but a dry hole has a very marked value.

By Mr. Butler:

Q. When you are getting no dry holes you almost hope for one, don't you, so that you can gain some knowledge?

2310

[fol. 2398] A. No, sir, we would rather gain our knowledge by production.

Q. I assume that you recognize that all proper accounting and all commissions place dry hole expense in current operating charges?

A. That is not quite my understanding. I believe that they permit the company either to charge off their dry holes drilling in the year in which it is done or to amortize it over a period of years so much per year and charge to that account to amortize the dry hole expense for that year.

Q. What did the United do?

A. I think the United had charged it off.

Q. Yes, and so does the Ohio Fuel Gas, does it not?

A. Well, I will have to check it. I think you are right.

Q. And yet, notwithstanding that those are charged off and have been charged off and are being charged off, you get some value out of a dusty hole and carry it into your rate base, would you?

A. I certainly would.

By Chairman Geiger:

Q. You take this general view, as I understand it, that every failure one makes in trying to develop some matter, no matter what it may be, is of value in leading to ultimate success. You might apply it to any occupation. A lawyer might get some value out of losing a case, because it enables him to judge what he may do in the next case to win it. A physician might make an error in diagnosing a case and miss it in that case, but that helps him in some other?

A. Yes, sir.

Q. In other words, generally, you say an energy put forward in endeavoring to reach a successful conclusion which in itself is not successful, is of value as you add to your

2311

[fol. 2399] experience, and it enables you the better to reach your ultimate success? That is generally so?

A. I think that is almost automatic. I do not think anybody would contest that. I think here we have an application of that. I tried to give my reasons for feeling that way.

Mr. Turner: Would you permit a question or suggestion?

Mr. Butler: Why sure, Mr. Turner.

Mr. Turner: The fact that a bank charges off its fixtures or its building or both does not destroy the value of the building or fixtures, does it?

The Witness: I would say not, no, sir.

Mr. Butler: But suppose that the bank, in addition to its legal interest, had been making me pay for those fixtures?

Mr. Turner: You pay interest.

The Witness: As long as they belonged to the bank, or as long as they belonged to you, if you were buying those fixtures from the bank, in that manner you claim a value for them and the bank claims a value for them. The value is not destroyed, in other words.

Q. That is interesting, and it brings me to this. Does this question and answer reflect your basic conception of going concern value;

Q. As I understand what you mean by going concern value is what the plant would sell for in an open market over and above what it would actually cost for the materials in it? Answer: That is right. That is the principal definition.

Mr. Turner: Is that from the United case?

The Witness: Yes, that is the principal definition that I know of that is most broadly recognized as the definition of going concern value.

2312

[fol. 2400] Q. Now, a step further. Mr. Lerch, you are rather impatient, aren't you, with the people that think they can develop going concern value with anything like mathematical accuracy or precision?

A. No, I am not impatient with them.

Q. You don't think it can be done?

A. I don't think that you get a sufficient recognition of that very great value through a purely mathematical computation, and I think that every court and commission who has heretofore passed upon the question has had the same thought in mind, because there have been attempts to compute it before, and they have been presented to commissions and courts, but the commissions have said in effect, "This is a decided value. We think it should be recognized. We think it should be recognized to the extent of ten, eleven, twelve, sometimes fifteen, per cent of the physical property". Now that to my mind is a very tangible recognition, and that is the theory on which I think it should be recognized. And it is a matter of judgment as to what the commission and court wants to approve. Now, the computation of going concern value is decidedly valuable, because it gives you some idea of what that value may be of the factors which you can tangibly compute.

Q. Mr. Lerch, aren't you experts now trying to develop by sub-divisions through exact dollars that which you before thought could not be developed, and aren't you doing it merely to meet the observations of the courts that it must be done if it is to be allowed?

A. We are doing it to meet the observation of the court that it should be done and taken into account if going concern is to be allowed. Now, I refer to this United Fuel de-

2313

[fol. 2401] cision by Judge Hatcher, and I do not think that he said as an illustration of what a court might say that it should not be allowed because it was not computed, but that it should be computed if possible and then taken into account. Now, that is my interpretation of what he said. I may be wrong.

Q. Let me read from your testimony in that United case, May 7th, 1929:

"Question: In short you adopted ten per cent. finally as a conjecture or hazard?

"Answer: No, it is a lot more than a conjecture. It is an attempt to recognize the very substantial character of going concern value in the case of the United Fuel Gas Company.

"Question: But you were not able to translate a single one of those elements into dollars?

"Answer: No, I have not attempted to segregate them into dollars, and I believe I have stated that would be a very difficult conclusion to reach by mathematics."

A. I still think that is the case and I do not think I have said anything this morning that contradicts what I said there.

Q. We will, of course, argue that later, but at least this is a fair interpretation of your point of view?

A. Yes, I think it is a very difficult matter to compute the going concern value by mathematics and then say that is going concern value from the facts that are available for that purpose. Now, I think that the courts and the commissions and I myself in arriving at my judgment of the going concern value in a case where I have made an investigation or study of it must base it upon all of those facts, but it must be judgment in the end.

2314

[fol. 2402] By Chairman Geiger:

Q. Have you reached the point where you think the proper judgment of going concern value is ten per cent. of the whole of the property?

A. As a general conclusion, Judge, I would say yes to your question.

Q. Now, would you give us the basis, briefly, not too much time, for arriving at the conclusion that it should be ten per cent. rather than five per cent. or 15 per cent. or any other per cent.?

A. I have already, I think, stated the answer to that very question in the record. Ten per cent. to my mind is a real recognition of that value. The computation of the value, taking all things into account—take the Ohio Fuel Gas Company case—the valuation of physical property there is approximately $100,000,000.00; I would say if an allowance for going concern in that case were made of ten million dollars, it would be a very substantial recognition of going concern value.

Q. I believe Mr. Wheeler testified to 15?

A. The computation shows it is 15 per cent. If I were to make the same investigation and go into his report in detail, I might come to the conclusion that ten per cent. in this case is not right, that it should be higher. In the Dayton Power & Light case I think Mr. Emery testified to a

larger going concern value than I had testified to. We testified or had practically the same discussion in that case. I think in the United Fuel Mr. Kimball, who made some investigation down there and put in some testimony, came to a figure higher than the figure that I had recommended and higher than the figure which Mr. Carter, the opposition witness, that is, opposition to the company, had testified to.

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[fol. 2403] Q. Has earning power anything to do with this going concern value?

A. Well, of course, earning power has to do with going concern value, but in a public utility earning power can not be the measure of going concern value. In an unregulated industry or in a private industry, it has a great deal to do with intangible value, good will, going concern value or any other feature you want to consider.

By Chairman Geiger:

Q. You have come to this conclusion in your figures, that your estimate of going concern value is the value that is added to the bare bones of the structure by reason of the fact that it is a going concern as against a dead concern; is that correct?

A. Yes, that is correct. That is—just a minute—you mean by dead concern a system of equipment ready to do business?

Q. Yes, exactly. But you make your estimate upon the difference in value between the system ready to do business but having no customers and the system that is operating, and not upon what it would cost to put the system ready to do business into operating condition? You are not giving us the figures to reconstruct that element that is called going concern value, but you give your figures based upon your judgment as to the added value, irrespective of what it might cost to add that value?

A. Not entirely irrespective, but with some consideration to what that cost would be. For instance, without those figures, you might get an idea that the going concern value of the company was 50 per cent. Now, we attempt to make some kind of a check and form an opinion, and you know

how opinions are formed, of course. From everything you have got in your mind and everything you can gather into
2316
[fol. 2404] your mind you form your opinion, and as near as I can find out that is what every court and every commission in the country has done. And there have been almost hundreds of them passing upon the point, and making exactly that allowance. They have taken into account these elements of cost and the operating conditions and all the other factors which go to put life into the company. From a study such as Mr. Wheeler made or as Mr. Kimball made in the United Fuel Gas, you can have before you some element of measure of what that going concern value may be. Now, you can accept that, if you are well sold on the idea of going concern value, you can accept what the computation shows, and you would not be far wrong, because it is a direct computation, and you can put your finger on it. But I do not think that that is all that I have in mind when I talk about going concern value.

Q. You have in mind in addition to the cost of establishing going concern value the value that is added to the plant, whatever it may be, by reason of the fact that it is going rather than static?

A. Absolutely.

By Mr. Butler:

Q. You see in the study made here, for example, $4,500,000.00 was put in for consolidation value. Now, just how in the world would you, an expert, work out the dollars from these various combinations of Ohio Fuel Gas Companies; what formula have you?

A. Well, the formula that was used to work out this four and a half million dollars, that is, the formula as such, is described in Mr. Wheeler's report, and I am sure he described it to you much better than I can.

Q. I don't know. I rather like to discuss these matters with you, and I would just like now—you see I had the
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[fol. 2405] impression that you had rather frankly said that this thing was impossible, and I liked it—I believed it—but if you have a somewhat different view now, I would just like for you to tell the Commission in your own way?

A. No, I have no different view now and I have not tried to state a different view at the present time from any other view that I have testified to.

Q. Just tell the Commission how you would go about it in this Ohio Fuel Gas, with its many purchases and consolidations and takings over, to develop four and one half millions in dollars or any other way? Now, to be fair with you, I think somebody here, and possibly it was in respect of this, spoke of it, that is, of getting a value of this general kind, as an educated guess. Does that fairly picture your mind—an educated guess?

A. Well, that term means so much. If you will take it as I think of it I will answer it yes.

Q. I think I do understand what you mean by that, Mr. Lerch. I think you put back of it the ability of trained men and conscientious men; but in the end, with all of their training and all of their investigation and all of their ability—I will not say guess to you—it is just a matter of judgment, isn't it?

A. I think it is a matter of judgment, yes. I think it is a matter of judgment, based upon experience. And in our organization, which has been in existence since 1894, and it was only last year that one of the original members died in that firm, we have had a very successful experience in exactly such matters which contribute to this element of value. We have advised mergers, we have reported on them, we have made them and financed them and have had

2318

[fol. 2406] something to do in every kind of merger, and we have a pretty good idea of what we can expect to get out of a merger; and having that in mind I would say it is a very highly educated guess.

[fol. 2407] Q. I find from some of the matters submitted to me, from your testimony on May 7th, 1929, in the United Gas case, this question and answer:

"Question. Then you would consider that the matter of rates would have a tremendous effect on going concern value?

"Answer. Yes, sir."

A. You will have to read that question with the full context.

Q. That is the reason I told you I only have a little of it, because I want to be fair with you. Let me follow that

up by this question: "The Columbus Gas & Fuel Company in this case claims that it has been altogether without any adequate return for a number of years, four or five or six years, indeed for most of the time without any real return on a proper rate base, and even now going into the red." Now, if you were evaluating your conception of going concern value for this local company, would you take that into consideration or not?

A. I might take that into consideration as an element, and I would also have to take into consideration as an element the prospects of such a condition continuing indefinitely, and the fact that if such a condition were to continue, we wouldn't have much of a concern of any kind. I don't know just how it would affect the answer. I can't tell you because I would have to give it considerable thought.

Q. On page 13 of your exhibit No. 45——

A. What is that?

Q. Exhibit No. 45, page 13—turn to that. I am reading: "Going concern value. This report includes"——

2319

[fol. 2408] Mr. Turner: Do you say his exhibit, Mr. Butler.

Mr. Butler: Well, yes.

Mr. Turner: Oh, I get your point: it is Ford, Bacon & Davis? I beg your pardon. I see your point.

Mr. Butler: Yes.

Mr. Turner: You have switched off from going concern for a moment?

Q. "Going concern value. This report includes an amount for going concern value. The engineers recognize the existence of this value, and it has been separately determined and proven.

"Other elements of value. This report does not include any allowance for promotion profits, earning power, consolidation or development value, or any similar elements of value which are recognized as being proper elements of value."

Did you mean to carry these other elements of value into going concern value? I don't quite get the distinction or the difference.

A. The distinction is this, that promotion profits are profits which the promotor of a proposition of this kind

would get either in stock or cash or bonds or some other form, and there has no attempt been made for any allowance in the report for profits of that kind.

Q. You put promotion costs in in your general overheads?

A. Oh, yes, but I am talking about profits, not costs.

Q. It is very hard to tell where one ends and the other begins?

A. If you do not have profits it is not very hard to tell. But earning power—I have told you as far as this report is concerned we made no allowance for earning power, and I am sure the report on going value did not.

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[fol. 2409] There might be confusion there in the consolidation value.

By Chairman Geiger:

Q. How do you distinguish between [illegible]otion profits, which you say are not considered, and co[illegible]ndation profits?

A. The term is consolidation or development value and promotion profits.

Q. I know, but where is the difference?

A. Oh, well, they come from entirely different sources and arise at different times. For instance, the consolidation value is something that would accrue to the owners of the company at a consolidation. Whoever owned the company would benefit by its advantages.

Q. Isn't promotion value something that would accrue to the person who engineered the promotion but would be paid for by the owners of the company as a value they had received as a result of the value brought about by consolidation?

A. No; promotion profits would be probably in the shape of a part ownership in the property.

Q. No, you pay for something that is paid for by reason of the consolidation?

A. No, I think it comes about the other way.

Q. They are not the same in your mind?

A. No.

Q. That is all I wanted to know.

A. Promotion profits is what the man keeps when he makes the proposition to somebody else to buy in with

him, or somebody may buy him out and pay him a big profit for his work.

Q. But as a matter of fact and history, ever since consolidations have been in vogue in this country, the promoter gets paid in stock, money or some other way, by reason of the fact that he has consolidated into a larger group a number of separate groups, or whatever it may

2321

[fol. 2410] be factories, steel companies, gas companies, railroads, street railroads or anything else; somebody has gone out and consolidated them into a larger unit and has been paid for it.

A. Somebody with an idea of making some profit would promote such a scheme.

Q. Don't he get paid a portion because he as consolidated them?

A. Yes, but that is not what we have in mind when we say consolidation value.

Q. I don't see the difference.

Mr. Turner: It is not in here. He is saying it is not in here, that is all he is saying.

Chairman Geiger: Oh, I understand it is not in there, what the promoter would be paid for making that promotion, but it is in there, the value that accrues to the property by reason of the fact that somebody has consolidated it.

Mr. Turner: Oh well, you are talking about going concern.

The Witness: Yes, that has been put in as an element of going concern.

Chairman Geiger: All right.

By Mr. Butler:

Q. What do you call promotion profits? What would you say about this case: A goes out and secures an option or purchases outright gas lands for two million dollars. He turns them over to the B company for four million dollars. And they are all working rather closely together, interrelated? I am not demanding an exact answer.

A. Is that your question?

Q. Yes.

A. All right. I would say that A had made some profit in the two million dollars difference between what he paid

for the property and what he sold it for. Now, he would not make that in profit, because he would have expenses and he would have his time. He is entitled to some remu-

2322

[fol. 2411] neration for his services. A man who can do that is a man that is capable of earning a fairly good living. A man who would go out and buy two million dollar's worth of property and sell it for four, is not just an adventurer in that sense.

Q. Not in the bread line.

A. No, not exactly. And he would be capable of earning a pretty good living, and of course, his profits would be over and above legitimate expenses.

By Chairman Geiger:

Q. Would you say that if he went out and combined a two million dollar property and made it a four million dollar property that the public who buys from the companies so consolidated so that it was worth four million dollars, should pay an income on the four million rather than on the two million?

A. If they had four million dollars' worth of value working for them, they should pay a rate on four million dollars, regardless of what this fellow got for creating four million dollars of value.

2339

[fol. 2412] Q. Therefore, *do* far as the rate base is concerned, when you speak of intangibles you speak of that thing or those things combined which produce what we call going concern value?

A. That is the principal intangible value I would say in a rate case or in a valuation of a public utility property.

2340

[fol. 2413] Q. I am talking about a rate case now, so that we understand each other.

A. Yes, that is what I mean, in a valuation used for rate making purposes, that would be my idea of the intangible values.

Q. In other words, when I consider what you have done in this case and when I consider your treatment of intangibles, I may assume that all of the intangibles that you think ought to go into a rate base have been gathered up in this going concern value?

A. I think so, yes. I do not want the record to stand just exactly like that, Mr. Butler. I would say under ordinary circumstance in some particular rate case, and I am not saying that that one exists here, it might be different; there might be some other element of value that I cannot now define.

Q. But as used in this case, and this is particularly applicable to this case, and this is particularly applicable to this case——

A. Yes.

Q. As used in this case intangibles mean going concern value?

A. Yes.

Q. I realize, and that is why I have asked the question, that there is a loose use of the term. Sometimes very good experts will make it cover everything. Just so we understand it.

A. Yes.

Q. I see on Page 12 of the Company's Exhibit No. 45 you have used $12,000,000.00 as going concern value?

A. That is right.

Q. I think Mr. Wheeler's study developed more than fifteen million?

A. That is my recollection.

Q. Has his study made subsequent to the use of this

2341

[fol. 2414] amount or were you generous with us?

A. No, sir. I think Mr. Wheeler, as part of his study, gave us an allocation of that between the city gate property and the distribution system property, and we have included here only that part which he said applied to city gate property.

Q. The $15,140,000.00 applies to the whole business?

A. Applies to The Ohio Fuel Gas Company as a whole.

Q. Including distribution?

A. Yes, sir.

Q. Now your working capital, including material and supplies, is $3,700,000.00, and your general overhead charges are $16,845,893.00; in other words, your general overhead charges, your working capital and going concern, amount there to $32,000,000.00 plus?

A. That is about right, yes, sir.

[fols. 2415 & 2416] ORIGINAL EX. CO. EX. 57

[fol. 2417] General Overheads

The Ohio Fuel Gas Company

[fol. 2418] COMPANY EXHIBIT 45

Page 23: Top to p. Through Word "Labor" in Line 8

General overhead charges on construction are classified as engineering and superintendence, administrative expense during construction, interest during construction, organization costs, legal expenses during construction, insurance and taxes during construction and the cost of financing. These overhead charges are unavoidable in the construction of a property and are as directly a part of the cost of the physical property as are materials and construction labor.

2348

[fol. 2419] F. H. LERCH further testified:

By Mr. Butler:

Q. What set-up do you make for this property for engineering and superintendence during construction that absorbs $3,246,423.00?

A. There are engineering fees. There is all of the drafting and supervision of the construction itself, the ultimate location work of the stations, the manner in which the system is ultimately to function and be completed, all covered by that item, all of the detail work; there is no other allowance for general supervision other than gang foreman in this valuation except what is represented by this allowance for general supervision.

Q. Do your gang foremen go into the labor costs?

A. Yes, sir.

Q. Above that any engineering and superintendence during construction?

2349

[fol. 2420] A. Above that in this general item, yes, sir.

Q. Over a period of two years?

A. Yes, sir.

Q. Well, how many men would be employed? At what salary?

A. You are asking me too many questions to give you an offhand answer, and I don't think it would mean very much to you if I did do it that way.

Q. Well now, I have that in mind.

A. I might attempt to work out some kind of a schedule showing that, but really I don't want to give you an answer like that from the stand without working it out, because it wouldn't mean anything.

Q. Didn't they work it out by schedule?

A. We have worked this out over a long period of years. We have used practically these percentages in valuation and promotion work, and have studied them from actual results without having any reason to change them. The variation, or segregation, rather of the total between the amounts we mentioned here, vary with different jobs, but approximately the segregation, as it shows there, is what general overheads we run into in construction work and promotion, and we have used them in that way. We have not gone and computed what engineering and superintendence would be and arrived at the percentage of the physical property in that way.

Q. That is the conventional answer and, of course, I cannot go back, since I have no data, and investigate the correctness of the assumption or the experiences connected with these other jobs. I can only address myself to this present one. I have found, Mr. Lerch, that sometimes when you break these things down it is surprising what is revealed, and that is why I am asking you to break it down.

2350

[fol. 2421] Three million dollars plus is a considerable sum of money.

A. And this is a considerable job.

Q. Quite so.

A. The superintendence of the construction of 5,000 miles of pipe, more than that, over six thousand miles of pipe, the construction of 38 or 39 compressing stations, the drilling of almost 4,000 wells, all in a period of two years' time, would require a tremendous organization. The figures of work involved here are almost inconceivable. I do not think that we can quite appreciate the magnitude of that, and if we do try to, the three and one half million

dollars for engineering and superintendence, considering that it covers everything from the gang foremen up, does not look like such a big sum.

Q. This work is done without the intervention of contractors?

A. This work is done by contractors.

Q. By contractors?

Mr. Turner: Well, you mean all of it?

The Witness: No, the pipe line and the buildings have been considered done by contractors ad the rest of the system gathered together by the company's own organization.

Q. What engineering do you refer to in this? You say engineering expense. What do you mean by engineering?

A. The principal expense there is the engineer who has charge of seeing that the plans are carried out.

Q. Yes.

A. Who advises and makes the necessary adaptations of the general scheme to fit the circumstances.

Q. Yes.

A. Who supervises the letting of contracts and the purchasing of materials and the preparation of specifications and sees that the work is done according to specifications.

2351

[fol. 2422] All that is an engineer's duty. Now the engineer charges a fee for that, the same as an architect charges a fee for building a house, looking after the construction of an office building. The expenses of the engineering are in addition to that fee. The fee might cover three or four men, maybe not more than one or two men, from the engineer's organization, but all of the rest of the expense would have to be borne by the construction company.

Q. Well, in making this estimate, you had assumed that the general engineering would have been completed under your promotion and organization?

A. Oh, no, not the general engineering. The general plan that was to be followed was completed then, but not the direct engineering necessary to install the plan.

Q. No, you had not gotten to installing it, of course?

A. No.

Q. But as I remember, you said that the plans should be completed, ready to begin to work?

A. Yes, we begin to work, not by putting a pick or shovel in the ground, but by issuing these plans, so that the contractors can bid on the amount of work that is to be done. The bankers are not interested in knowing that the detailed drawings, the detailed engineering, is completed, because it is not completed.

Q. Now, I think you want time to break that down?

A. I certainly would want time if you want me to break it up—or down.

Q. Do both. You break it down and let us break it up if you will. Now, you have $1,599,938.00 for general officers' and clerks' salaries during construction, general officers' 2352 [fol. 2423] and clerks' expenses during construction, office supplies and expenses during construction. Just how did you reach that million and a half please?

A. Well, that is another expenditure based upon what actually happens and is designed to cover, as the report says, the administration of the funds of the company, and to take care of all records, details of that kind, pay the bills, make the necessary distributions, so that when the operating company steps into the picture, it will have some basis for its capital investments and so forth, and to spend a half a million dollars over this period—I mean to spend one hundred million dollars over a two year period in practically every section of the state, would require that much money. You would have innumerable offices, besides the main office. You would have telephone and telegraph expense, and all such things to pay for, the same as you have in an ordinary, operating situation.

Q. There is $800,000.00 a year for general officers' and clerks' salaries and expenses and office supplies?

A. That is right. That would be the President of the company and the Vice Presidents, the salaries of their clerks, the accounting officers and so forth.

By Chairman Geiger:

Q. How much do you calculate to pay the President?

A. I suppose the president of a company like this would get 50 to $75,000.00 a year.

Q. Before the company was put into operation?

A. He has a whole lot harder work right now than he will have after the company is started.

Q. Wouldn't cut his salary afterwards down to a less rate?

A. No, I don't think so.

2353

[fol. 2424] By Mr. Butler:

Q. After it gets started, you think the Columbia Engineering & Management Corporation could run it?

A. They would need the same man, just the same, whoever he worked for.

Q. Break that down for us. Now you have law expenditures during construction, insurance during construction, taxes during construction, $1,199,953.00. How did you divide that up among the three items?

A. Well, we have never attempted to divide that up.

Q. Why not?

A. Well, we have never thought it was necessary, because the percentage was sufficient we felt to represent such expenditures.

Q. Oh, I think it is.

A. The instance, of course, is a fairly small part of it, because that is only insurance on such completed structures and equipment as would be covered by insurance during the period until they went into use. The legal expense is the expense for counsel advising in right-of-way matters, lease matters, well-drilling matters, and so forth, all of which are particularly numerous during construction.

Q. By the way, are they the same lawyers to whom just a little while ago we gave $250,000.00 for promotion?

A. No, sir, these are smaller lawyers than that. And the taxes are taxes on completed structures, which would be paid before the plant could go into operation.

Q. Now law expenditures, insurance expenditures, tax expenditures are so different from each other that it seems to me that you can separate those without any difficulty, and I suppose that in doing that you will easily explain the

2354

[fol. 2425] insurance and explain the taxes, I should like to have you go into detail about the taxes, because there seems to be a very considerable difference of opinion about that. Now, when you come to interest during construction, you

have simply allowed one year's interest on the total amount?

A. That is right.

4342

[fol. 2426] J. Paul Blundon further testified:

Q. What study have you made of the general overhead charges that would be incurred in the reproduction of the Ohio Fuel Gas Company property?

A. I have made an estimate of the general overhead charges which would be incurred in the construction, reconstruction, of a property similar to the Ohio Fuel Gas property in accordance with the uniform classification of accounts prescribed by this Commission.

Q. What was the result of that study?

A. I estimate the cost of reproduction new of the so-called general overhead charges at 14 per cent of the physical property, excluding land.

Mr. Turner: Including, did you say?

The Witness: Excluding. And that might be subdivided as follows:

Organization——

Commissioner Bricker: Oh what page do you find that?

The Witness: That is not in this exhibit.

Organization, new, $780,026.00; less depreciation, $780,026.00.

4343

[fol. 2427] Engineering and superintendence during construction, $1,950,064.00; less depreciation, $1,380,949.00.

General officers' and clerks' salary during construction, new, $624,021.00; less depreciation $441,904.00.

General officers' and clerks' expenses during construction, new, $156,005.00; less depreciation, $110,476.00.

Office supplies and expenses during construction, new, $156,005.00; less depreciation $110,476.00.

Law expenditures during construction, new, $624,021.00; less depreciation, $441,904.00.

Injuries and damages during construction, new, $312,010.00; less depreciation $220,952.00.

Insurance during construction, $156,005.00; less depreciation $110,476.00.

Taxes during construction, new, $312,010.00; less depreciation $220,952.00.

Interest during construction, new, $4,680,154.00; less depreciation $3,314,277.00.

Other expenditures during construction, new, $1,170,038.00; less depreciation $828,570.00.

Making a grand total new of $10,920,359.00; less depreciation $7,960,962.00.

For the purpose of giving these figures new and depreciated, we used the per cent condition found by Ford, Bacon & Davis for all property, all physical property, except account 210, gas well construction, and 211, gas well equipment. These percentages were used, not because we thought they necessarily were correct, but to show the fact that we believe that the depreciation of all general overheads except organization should be depreciated in accord-

4344

[fol. 2428] ance to the depreciaiton of the physical property.

Q. And you accepted and used the figures of Ford, Bacon & Davis except in those two particulars, gas well construction and gas well equipment?

A. The figures on depreciation?

Q. Yes.

A. Exactly except in those two particulars, yes.

4402

[fol. 2429] Mr. Davies: We desire to offer now City's Exhibits Nos. 74 and 75.

4403

Mr. Turner: Objection to each of them. The witness has not shown competency, and besides they contain matters that are wholly immaterial and prejudicial.

Commissioner Geiger: Objection is overruled and exceptions noted.

Mr. Turner: Motion to strike each one of them separately.

Commissioner Geiger: Overruled.

Mr. Turner: Exception.

And thereupon the paper writings above offered were introduced and admitted in evidence on behalf of the City of Columbus, and are herewith submitted, marked City's Exhibits Nos. 74 and 75.

4647

[fol. 2430] Cross-examination:

Q. Mr. Blundon, directing your attention to City Exhibit 87 and to pages 2 and 3 of that exhibit, which relate to the general overhead comparison, do we understand from that exhibit that you have allowed no general overheads on land?

A. That is correct.

Q. Do you mean then that so far as acquiring the land is concerned that there would be no organization cost necessary?

A. We have allowed for none.

Q. No administration, general officers, clerks or anything of that sort?

A. No, sir.

Q. No legal expenses?

A. Not as general overheads.

Q. Where do you allow them on land if you do not allow them in general overheads?

A. There would be none allowed.

Q. There would be none allowed?

A. No, sir.

Q. Then you allow no such expense for the acquiring of the real estate?

A. That is right.

Q. No interest?

A. That is right.

Q. No cost of financing?

A. No, sir.

Q. No other expense which you have included as general overheads at all?

A. No, sir.

Commissioner Geiger: Why do you make that distinction?

The Witness: It is just our practice never to include general overheads on land.

Commissioner Geiger: Have you any reason for it outside of your practice?

The Witness: No, sir, I would say not. It is probable that

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[fol. 2431] it might be better to include it.

Commissioner Geiger: Ford, Bacon & Davis have the practice of allowing it?

The Witness: Yes, sir.

Commissioner Geiger: Whose practice is the better?

The Witness: I think ours is.

Commissioner Geiger: Why?

The Witness: Generally it is a small item, but the legal expenses that we allow under other classifications are more than sufficient to provide for it.

Commissioner Geiger: They are allowed by Ford, Bacon & Davis, the other expenses that you do allow.

The Witness: Some of them. Of course, we differ with them in amounts.

Q. There wouldn't be any taxes on real estate then, would there?

A. We have not allowed for any, sir, under general overheads.

Q. How much have you allowed in the way of general overheads on rights of way?

Commissioner Geiger: What page are you having reference to?

Mr. Calland: I have reference to Pages 2 and 3 of Exhibit 87.

The Witness: We have allowed $16,171.00 on production system rights of way and $251,624.00 on transmission system rights of way.

Q. And that is your 14 per cent. isn't it?

A. Yes, sir.

4630

[fol. 2432] Monday Afternoon Session, October 26th, 1931

And also—

J. Paul Blundon, resuming the stand for further examination in chief, continued his testimony as follows:

Examined by Mr. Davies:

Q. Mr. Blundon, I hand you what has been identified as City Exhibit Number 87, entitled "Report of the Ohio Fuel Gas Company, general and direct overheads, city gas rate, Columbus, Ohio, prepared for the City of Columbus, J. Paul Blundon, Consulting Engineer," and ask you if that is the study you have made of that subject?

A. It is.

Q. Directing your attention to the first subject on Page 1, "Comparison of General Overheads before accrued depreciation," I wish you would explain that subject if you will?

A. Pages 1, 2 and 3 show a comparison by accounts of the general overhead charges as contained in the Ford, Bacon & Davis inventory in this case, and those same general overhead charges as previously testified to by me before accrued depreciation; in other words, this is just a comparison by accounts of the overheads that I have testified to and which have been submitted by Ford, Bacon & Davis before depreciation.

Q. The next subject matter that you have in City's Exhibit Number 87 is "Comparison, General Overheads after accrued depreciation." Will you please explain that subject matter and the pages in connection therewith?

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[fol. 2433] A. Pages 4, 5 and 6 contain the same study, but after accrued depreciation.

Q. On Page 7 of the same exhibit you have a title, "Comparison of direct overheads before accrued depreciation." Will you please explain that subject as you have it in this exhibit?

A. On Pages 7, 8 and 9 we show a comparison of the amounts of direct overheads included in the Ford, Bacon & Davis appraisal by accounts, showing separately for material, labor and structures, and also my estimate of direct overhead charges for the same property. Both the direct overheads and the general overheads are shown for the property unadjusted, that is, with no changes made in them.

Turning to Page 8, Columns 3 and 4 show the total property, including the direct overheads respectively of Ford, Bacon & Davis and myself.

Account 5 shows the property on which no overhead was allowed.

Columns 6, 7 and 8 show that property exclusive of direct overheads.

Column Number 9 shows the total.

The remaining columns are, respectively, the amount in dollars allowed by Ford, Bacon & Davis and myself opposite the respective accounts.

That same explanation applies to Page 9, ending with a total for direct overheads undepreciated by Ford, Bacon & Davis of $5,095,077.00, and for my estimate $3,293,552.00.

Q. In that same exhibit you have another study, entitled, "Comparison of direct overheads after accrued depreciation." Will you please explain that portion of your exhibit?

A. Yes, sir, that is contained on Pages 10, 11 and 12, and 4632 [fol. 2434] is similar and parallel to the explanation of direct overheads before accrued depreciation, and ends with a total result by Ford, Bacon & Davis after accrued depreciation of $4,205,695.00, and for ourselves of $2,709,475.00.

Q. That is shown on Page 12?

A. That is the last figures on Page 12.

Q. With reference to the Ford, Bacon & Davis appraisal before accrued depreciation, what total amount is included for lands, labor and material?

A. $74,901,813.00.

Q. And with reference to the Ford, Bacon & Davis appraisal before accrued depreciation, what amount is included for direct and general overheads?

A. $21,940,970.00

Q. What is the percentage of the total for overheads before accrued depreciation?

A. 29.30 per cent.

Q. Now, with reference to the Ford, Bacon & Davis appraisal after accrued depreciation, what total amount is included for land, labor and material?

A. $61,786,098.00.

Q. And with reference to that same appraisal after accrued depreciation, what amount is included for direct and general overheads?

A. $19,874,252.00.

Q. What is the percentage of the total for overheads after accrued depreciation?

A. 32.1662.

Q. Now, Mr. Blundon, have you prepared a supplementary exhibit to City Exhibits Numbers 74 and 75?

A. Yes, sir.

Commissioner Geiger: What does this show as the final difference between you and Ford, Bacon & Davis?

The Witness: Just a second. It comes on Pages 4 and 5.

Commissioner Geiger: On Page 5? The first column, one 4633

[fol. 2435] by Ford, Bacon & Davis, and the other by you, is practically identical. The only thing is the incomplete construction which you do not allow in the sum of $234,295.00.

The Witness: Yes, sir. But the total differences are shown on Page 5, before depreciation opposite total physical property including overheads, making a comparison of $96,842,783.00 by Ford, Bacon & Davis and $87,094,721.00 by myself. And then there would be a still greater difference after depreciation. In this set-up, we change the depreciation of the construction and gas well equipment accounts and also depreciated the general overheads, with the exception of organization, in proportion to the depreciation of the physical property.

Commissioner Geiger: What I was interested in was that on Page 5, your first few columns, you take practically the same value that they do.

The Witness: Yes, sir, the only difference on Page 5, which is the general property, between Ford, Bacon & Davis figures for accounts 244 to 255 inclusive and myself are the differences in direct overheads, which are very small.

Commissioner Geiger: Are you conceding that Ford, Bacon & Davis' estimate of the total property, excluding overheads and also excluding depreciation, is substantially correct?

The Witness: No, sir, we did not go into that. I qualified my testimony in regard to the material, labor and structures of Ford, Bacon & Davis the other day to that effect. We did not go into that.

Q. Those figures are simply assumed for these studies, except in particulars that have been explained?

A. When you asked me in regard to Page 5, you were re-

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[fol. 2436] ferring to 74 revised, were you not?

Commissioner Geiger: No, I don't think so. You mean an Exhibit——

Mr. Turner: 87.

The Witness: My answers were with reference to 74 revised. We were talking about that at the time.

Mr. Turner: The answer would be just the same as to that column, those two columns.

The Witness: Referring to Page 5 of Exhibit 87, the first two columns of figures show the property upon which Ford, Bacon & Davis based their general overheads, and, as explained in the title of the sheet, the same property upon which we based our general overheads, which we have taken or assumed to be correct for the purpose of this study.

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[fol. 2437] Q. What is the difference between allowing it on rights of way and on acquiring land, that you allow it on one and not on the other?

A. There is a great deal of difference between allowing it on rights of way and on acquiring land. The one is a few parcels of land; the others are spread out all along your pipe lines.

Q. When would you acquire this property, before or after you started to lay out your system?

A. Some of it would be acquired when you started and others as you go along with the system.

Q. As a matter of fact, you would acquire it all before you go ahead.

A. We would try to, perhaps.

Q. Certainly, you would. Have you any other reason why you should allow 14 per cent. on rights of way and not on land?

A. I have given you my reason for allowing it on rights of way.

Q. I understood that reason to be that you would acquire your rights of way before you started and you would not do it with land?

A. That was not the reason.

Q. What is the reason then?

A. I said we did not apply our 14 per cent. plan. Our 14 per cent. is applied to rights of way as set out on Pages 2 and 3 of the exhibit.

Q. Why couldn't you apply it to land?

A. It could be applied to land. You could multiply the land by 14 per cent.

Commissioner Bricker: What does this item of land include in this exhibit?

The Witness: It includes the item of $20,514.00, $67,-

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[fol. 2438] 818.00, $109,907.00 and $2,757.00.

Commissioner Bricker: What are those land parcels?

The Witness: I don't remember them offhand.

Commissioner Bricker: Location of pumping stations or what?

The Witness: I can get them for you.

Mr. Calland: Pumping stations, warehouses, office buildings.

Commissioner Bricker: That is all I want.

The Witness: The main item of it is in this genera l property.

Commissioner Bricker: That does not include buildings.

The Witness: The land, no, sir.

Commissioner Bricker: Were your overhead figures applied on buildings?

The Witness: Yes, sir.

Commissioner Bricker: Regardless of what the nature of the building was?

The Witness: Yes, sir, direct overheads took into account the nature of the building.

* * * * * * *

[fol. 2439] Q. I understand this Exhibit 87 to be a comparison between Ford, Bacon & Davis' general overheads and your overheads of 14 per cent?

A. Yes, sir.

Q. What have you included in your overheads that are not included by Ford, Bacon & Davis?

A. We have——

Q. I mean included in general overheads by Ford, Bacon & Davis?

A. We have included the expenditures provided under the uniform classification of acounts under Account Number 267, other expenditures during construction, and the

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amount of $1,193,440.00, for which they provided nothing.

Q. And that is defined in the uniform classification of acounts as the place to charge everything not charged anywhere else, isn't it?

A. Yes.

Q. Then I want to know what you have put in that one and one-half per cent that is not in Ford, Bacon & Davis' allowances for general overheads?

A. Of course, all general overheads are an estimate, and we have provided tht one and one-half per cent to take care of omissions, contingencies, or anything that might not occur in the other classifications.

Q. Well, of course, your answer is just as beautifully indefinite as the uniform classification of accounts?

A. Yes, sir.

Q. What I want to know is, what is in that one and one-half per cent which you have included in your set-up, and which Ford, Bacon & Davis have not included in theirs?

A. It is an allowance to take care of any other charges that we might not have allowed for under the other accounts.

Q. Do you know what Ford, Bacon & Davis included in theirs?

A. I presume they followed the uniform classification of accounts.

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[fol. 2440] Q. Do you know what they included in theirs? Have you made any study of their set-up to find out what they allowed?

A. Well, I made a study of it as shown in their summary.

Q. Do you know what is included in yours?

A. I have set it forth.

Q. I see the figures, but do you know what is in it?

A. Yes, sir.

Q. Tell me what the difference is that is represented by this 1½ per cent?

A. I just started to explain it to you.

Q. Go ahead.

A. It is an allowance for omissions and contingencies and other things that would not be provided for under the other accounts.

Q. Of course, the other things are what I am trying to get at.

A. There are a good many things that might turn up.

Q. Name one. Name a few of them.

Commissioner Geiger: Any further questions?

Mr. Calland: We are waiting for an answer.

The Witness: He is waiting for me. I expect the way I will have to answer that is by saying it is an amount of

1½ per cent, and it provides for omissions and contingencies or anything else that is not cared for under the uni-

4653

[fol. 2441] form classification of accounts. If we correctly understand your exhibit, you have allowed the same amount of general overhead for engineering and superintendence during construction on transmission, system production system and general property; is that right?

A. Yes, sir, that is right.

Q. You make no distinction between those three?

A. No, no distinction. It is an over-all allowance.

Q. What did Ford, Bacon & Davis do in that respect?

A. Their exhibit speaks for itself on page 23. It shows that they have allowed 2½ per cent on production, 5 per cent on transmission and 1 per cent on general property.

Q. Can you think of any reason why there should be a different allowance for engineering and superintendence

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[fol. 2442] as between transmission property and general property?

A. Generally speaking, there might be, but in arriving at a cost for engineering, we considered the property as a whole, knowing about what it constituted from the appraisal, and considered what percentage would be a fair price or a fair cost of doing the necessary engineering work on the property as a whole. In this break-up we applied it over all.

Q. Of course, I know that that is what you had done, but I asked you whether you could think of any reason why there should be a difference between the engineering and superintendence allowances on transmission system and on general property, such as was made by Ford, Bacon & Davis. Can't you think of any reason why that should be done?

A. Yes and no. If you are going to compare the two, it would be necessary to go down to the individual accounts in the two.

Q. Look at them. You have them there.

A. That is what I say. For instance, the general Telephone & Telegraph property would take probably more engineering than the rest of the other general property besides structures.

Q. Now, how about transmission?

A. Transmission property, some of it, would take more engineering than some of the general property. Other of the transmission property would have less engineering than some of the general property.

Q. I am trying to find out what consideration you gave to that in arriving at this.

A. As I told you before, we considered it as an over-all estimate, over all of the property.

Q. Could you determine that that over-all was correct without giving consideration to the amount of engineering necessary in reproducting the production property, the

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[fol. 2443] amount needed in a general property and the amount needed in a transmission property?

A. This is an over-all estimate for engineering.

Q. Where are the compressor stations, in which classification of property?

A. They are in the transmission property.

Q. You built a compressor station, I believe, once?

A. I have set up and operated compressor stations, yes, sir.

Q. Do you know anything about these compressor stations such as a gas company like this has?

A. Yes, sir.

Q. Do you know anything about the engineering cost of setting one of them up?

A. Explain just what you mean by engineering cost of setting one of them up.

Q. The engineering overhead for setting up a compressor station?

A. Yes, sir, I have an idea of it.

Q. Did you give it consideration in arriving at your 2½ per cent?

A. Yes, sir.

Q. What did you figure it would be?

A. I did not figure it in so many dollars.

Q. Did you figure it in per cent?

A. No, sir, but I knew about what portion of the property the compressor stations were, how much of them there were, the number of them there were, and the class of them.

Q. Of course, you knew that, but do you know anything about the engineering overhead?

A. I did not make an individual set-up for an individual station.

Q. I know you didn't set it up here, but did you show it in your work sheets, or make any figures to determine it?

A. No, sir, not an individual set-up of a compressor station, no, sir.

Q. Do you know what the engineering overhead is on 4656

[fol. 2444] one of them?

A. I could make you an estimate.

Q. How much?

A. I don't know. I would have to consider it.

Q. Have you ever made an estimate of it?

A. Not to pick out a single unit.

Q. I did not ask you about a single unit. I am talking about a whole compressor station.

A. Nor of a whole compressor station, no, sir, I have never made an estimate of the unit as such.

Q. Yet you are quite certain your overhead allowance is all right, although you do not know what it costs to install compressor stations from an engineering standpoint?

A. You quote me a little incorrectly there. I could prepare an estimate.

Q. But you have not prepared an estimate, and you do not know, and you have handed us this exhibit?

A. Yes, sir, I have handed you this exhibit.

[fol. 2445] Q. Turning now, Mr. Blundon, to the exhibit 87 and to the page referring to direct overhead.

A. Depreciated or undepreciated?

Q. Undepreciated. Wait a minute, I will tell you. Undepreciated, I believe, Mr. Blundon. What allowance in direct overheads have you made on transmission lines labor?

A. On transmission—what is that, sir?

Q. Transmission lines labor?

A. Transmission line labor? We have allowed 3 per cent. for superintendence, 2 per cent. for time keeping and checking in the field, 1 per cent, for the use and loss of tools, 2 per cent. for liability insurance and 2 per cent. for incidentals and contingencies, making an over-all allowance of 4657

[fol. 2446] 10 per cent. as direct overheads on labor for account 226.

Q. Do you recall what you allowed on that item in the United Fuel Gas, what you allowed in your set-up?

A. I don't recall, sir, but it was a larger amount than that. In the United Fuel Gas I allowed on the labor that was in the ditches, the digging of the ditches, 10 per cent. for contractor's profit.

Q. You have not allowed that here?

A. No, sir.

Q. Why?

A. Because I do not think it is necessary, and I think the company, after all of the allowances that have been made for engineering and other items, should be able to handle that ditch digging themselves.

Q. How much more have you allowed for general overheads in this case than you allowed in the United Fuel case?

A. General overheads?

Q. General overheads?

A. About the same, I think.

Q. You do not think that it would be necessary to have a contractor at all on the Ohio property?

A. No, sir.

Q. But you did think it was necessary in West Virginia?

A. I figured it in West Virginia.

Q. And you allowed 19.4 per cent. in West Virginia?

A. Yes, sir.

Q. Here you have allowed 10?

A. Yes, sir.

Q. Where do we find your allowance in direct overheads for the purchasing costs, Mr. Blundon?

A. Direct overhead?

Q. Yes.

A. It is in there.

Q. How do we find it?

A. You will find it under the direct overheads on material.

Q. Is there any way we can identify it or find out how

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[fol. 2447] much it is?

A. It is .5 of one per cent.

Q. How about warehousing? Do we find that in here in the same way?

A. That is all in there on the material.

Q. Can you tell us how much it is?

A. Account 208, 1 per cent. 212, 1 per cent. 214, 1 per cent. Wait a minute. 208, 1 per cent., 212, .5 of 1 per cent., account 214, .5 of 1 per cent., account 226, 1½ per cent., account No. 216, 2 per cent., account 217, 1 per cent., account 224, on the auxiliary equipment, 2 per cent., on the pipe, 2 per cent. Account 225, 2 per cent. on the station equipment, and 2 per cent, also on fittings. Account 255, 2 per cent.

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[fol. 2448] Q. Now, Mr. Blundon, except to ask you from what experience of yours you determined these direct overheads which you have set up here, I cannot go much further with your cross-examination. I wanted this information to check. But now tell us where you got these figures and what experience you had to tell you that your figures were right and correct as against Ford, Bacon & Davis' figures?

A. That estimate is the result of all the experience that I have previously outlined, which has dealt with construction work and the necessary costs that go with it. We do a great deal, in a small way, not as the Gas Company would do—we do a great deal of purchasing for other people. I have constructed two water utilities as utilities. They were small, and of course the direct overheads that were incurred there, if any, should be larger than they would be in a larger utility.

Q. Why?

A. Because ordinarily the larger volume that is handled, the higher or lower would be the respective unit costs.

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[fol. 2449] Q. That is just a supposition on your part. You never had any experience on a larger utility?

A. I never built a larger utility, but I know the larger the job you do the lower these direct figures become.

Q. You are dealing here, of course, with all of the various kinds of property that go into a big gas company?

A. Yes, sir.

Q. Your experience consists in having bought some small amount of materials for two small water plants?

A. Yes, sir.

Q. What experience or knowledge have you to determine that Ford, Bacon & Davis' were too high and that your are right?

A. I do not think that our differences on Ford, Bacon & Davis' overheads are great except in the matter of contractor's profit on pipe line. But our experience has been, as previously testified to, as far as direct overheads on labor. We have built and do continually build plants of one sort and another, and we are familiar with the cost of superintendence, time keeping and checking, the use and loss of tools, carrying of liability insurance.

Q. Then as I understand your answer to be, it is based on your experience?

A. Yes, sir.

Q. Does that answer apply also to the general overhead allowances?

A. Yes, sir.

Q. Based on your experience?

A. Yes, sir.

[fol. 2450] Commissioner Geiger: In order to get something definite——

Mr. Calland: That is all for the present.

Commissioner Geiger (continuing): Before my mind, may I ask a question? Take your page 5 for example, page 5 of Exhibit 87. There are quite a number of very

4660

[fol. 2451] large differences between the estimate of Ford, Bacon & Davis and your own, without apparently much explanation for it. You might take account 258, engineering and superintendence during construction; Ford, Bacon & Davis has an estimate of $340,000.00 and you have an estimate of $283,000.00. Am I correct in that?

A. Yes, sir, the main cause for that difference is shown on page 5, and is accountable for by the fact that we depreciated the general overheads, except organization, in proportion as the physical property is depreciated. Ford, Bacon & Davis do not. The comparison of the overheads as such before depreciation on that account is shown on page 2, and you will see that we have the same amount for engineering and superintendence during construction.

Q. Take item 226, your transmission system. Ford, Bacon & Davis, have an engineering and superintendence during construction figure of 1,885,000; you have it 836,000; or a $1,050,000.00 difference. That is a pretty large item.

A. Yes, sir.

Q. Now why?

A. That difference, I think, is mainly accounted for by the fact that we made an over-all allowance for engineering over the whole property, whereas Ford, Bacon & Davis made a varying amount for production, transmission and general.

Commissioner Geiger: Where is your item of engineering over the entire property?

The Witness: We allowed 2½ per cent for engineering over the entire property. Ford, Bacon & Davis allowed——

Commissioner Bricker: Except land?

The Witness: Exclusive of land, yes. Ford, Bacon & 4661,

[fol. 2452] Davis allowed 2½ per cent on production, but 5 on transmission and 1 on general; but we allowed 2½ over all.

Commissioner Geiger: Well, who is right about it and why?

The Witness: I think that we are, sir, although in that one item where the difference is shown on page 6, they show $3,049,042.00, and our over-all charge for engineering, $1,638,927, and it is our opinion that that sum will do the necessary engineering work. $1,300,000.00 is a considerable bunch of money.

Q. Where is that on page 6?

A. That is shown on grand total on page 6 under engineering and superintendence.

Q. The only thing we are trying to get at, you have considerable differences in your figures from those of Ford, Bacon & Davis, and we want to know why you have those. And you do not seem to give any very good reason why there is that difference. Some of your figures are larger, I see. Take on page 6, your total under law expenditures during construction, Ford, Bacon & Davis is—no, you are just the same.

A. Would you mind going back to page 3, which shows those differences before depreciation? It really gives a better comparison of the overheads that were allowed by both of us than on page 6.

Commissioner Geiger: Page 3? Your grand total for your engineering and superintendence during construction—They have $3,246,000.00 and you have $1,989,000.00. Why all that difference?

The Witness: It is a difference in opinion as to the amount it would cost to do the necessary engineering work. That is all I can say.

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[fol. 2453] Q. There is $1,300,000.00 that is just difference of opinion?

A. The figure we have, $1,989,065.00 will be well in line with costs for that class of work as recommended by the National societies. If you will refer to the charts of the American Society of Civil Engineers or any of the charts prepared by the National Societies, you will find them well in line.

Commissioner Geiger: And that of Ford, Bacon & Davis is out of line?

The Witness: That is our opinion, yes, sir.

Q. Have you got any place you explain that difference in this exhibit, any more than this total figure on page 3?

A. No, sir, except to show the difference by the various accounts, how it works out.

Commissioner Geiger: Well, there is just one other thing—well, among other things, your figures are based on per cents, are they not, largely?

The Witness: Yes, sir, practically all of them are based on per cents.

Commissioner Geiger: On page 5 you started assuming the same figures as being the total value of the property that Ford, Bacon & Davis have set out, total production system, 22,000,000, Ford, Bacon & Davis; yours is 22,000,000; the total transmission line is 14,000,000 and yours is 14,000,000. Now, do you agree that the 22,000,000 of Ford, Bacon & Davis is right?

The Witness: No, sir.

Commissioner Geiger: You don't agree that the 14,000,000 is right?

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[fol. 2454] The Witness: No, sir.

Q. Inasmuch as they are not right, then, of course, any figure you would set out here, based on a per cent of these total figures is not right?

A. That is correct. We made this comparison in order that the Commission could have our views on each item by itself, that is, on the direct overheads, so that they could accept or reject that, and on general overheads by itself. The only place where our views are correlated is in this Exhibit 88 when you get down to the final figures.

Commissioner Geiger: Well, there is a great deal of yours then that is set out, based on a per cent, that is on the assumption that you agree with Ford, Bacon & Davis' figures, to show the difference you arrived at in this various items, assuming that Ford, Bacon & Davis is correct in its basis?

The Witness: Yes, sir.

Commissioner Geiger: Inasmuch as they are too high, then, of course, your figures are still too high?

The Witness: Yes, sir.

Commissioner Geiger: Have you figured to get it down to what you think it is really worth?

A. On general overheads?

Commissioner Geiger: On valuation of property?

The Witness: No, sir, we have made no valuation of the property and have only testified to it in connection with one or two other items. One was a difference in pipe prices. The second one was the gas well depreciation. And the third was the elimination of that little building here at Sugar Grove.

Commissioner Geiger: What difference is there in a general way between your depreciation and Ford, Bacon &

4664

[fols. 2455 & 2456] Davis' depreciation?

The Witness: The only items of depreciation that we have gone into are the gas well construction and the gas well equipment accounts.

Commissioner Geiger: You have a greater depreciation than they?

The Witness: Yes, sir, quite a bit.

[fol. 2457] Working Capital

The Ohio Fuel Gas Company

26

[fol. 2458] The working capital as shown in the valuation includes amounts shown on the books for material and supplies on hand as of December 31, 1929, a reasonable allowance for cash in the bank together with an amount sufficient to provide for approximately two months' average operating expenses and the average cost of gas purchased in one month, all based on the year ended December 31, 1929. No other allowance has been made to cover stock of gas in lines.

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[fol. 2459] P. Antonelli further testified on cross-examination:

Q. How do you develop working capital? Can you just tell me clearly and simply?

A. Yes, sir. There are several elements that were taken into consideration in the development of working capital. The first one was the material and supplies on hand by the company as of the date of the valuation, namely, December 31, 1929. To it we have added one-twelfth of the average cost of the gas as ending December 31, 1929. Also one-sixth of the operating expenses for the year ending December 31, 1929. Also an allowance which was equivalent to 15 per cent. of all operating expenses for cash in the bank.

Q. For all cash in the bank or the proper amount of money in the bank?

A. We assumed that the company has to have certain cash in bank to meet some expenses which we have not foreseen in their everyday operating expenses.

Q. How much? How did you determine it for this company?

A. I said it was 15 per cent.

Q. 15 per cent?

A. Yes.

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[fol. 2460] Chairman Geiger: Of what?

The Witness: Of the operating expenses of the company.

Mr. Turner: For what period?

The Witness: For one year.

Mr. Butler: I did not catch that, Mr. Antonelli. Fifteen per cent of what?

Chairman Geiger: Operating expenses.

The Witness: 15 per cent of the operating expenses that we have already allowed in our estimate.

Commissioner Bricker: What was the percentage figure on your working capital of the present worth of the property, if you have that figure?

The Witness: Well, we did not figure it in percentage, but the amount is $3,700,000.00.

Commissioner Bricker: What were the first two elements you stated there to make up the working capital?

The Witness: It includes the materials and supplies on hand as of December 31, 1929.

Commissioner Bricker: One twelfth——

The Witness: No, all of the materials.

Commissioner Bricker: Materials and supplies? What else?

Mr. Turner: On hand, Mr. Commissioner.

Chairman Geiger: What else?

The Witness: Two months' average operating expenses and the average cost of gas purchased in one month, all based on the year ending December 31, 1929.

By Mr. Butler:

Q. Can you give me the amount of materials on hand, supplies and materials that you estimate?

A. I could get them out of our working papers. I haven't got it before me.

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[fol. 2461] Q. You don't show it here?

A. No, sir.

Q. Well, when you come again you can give me that?

A. All right.

Q. What kind of supplies were on hand? What kind of materials?

A. The supplies consist of casing and tubing, pipe, fittings of all kinds, valves.

Q. Materials for their gas wells, you mean?

A. Yes, casing and tubing.

Q. Do they have a considerable program of continuous development for gas wells, drilling gas wells?

A. Well, I don't know. I couldn't answer that question.

Q. You didn't examine into that?

A. No.

Q. You don't know how many they put down in '29?

A. Yes, I do know how many they drilled in '29.

Q. Well, how much of the materials and supplies on hand that you counted into this were for new developments, new gas wells?

A. I couldn't tell you that.

Q. Well, didn't you separate it?

A. No, we did not. We separated only the materials and supplies that are used in connection with the distribution.

Q. Suppose you had material on hand for new gas wells. You would not include that as any part of your basis for working capital, would you?

A. Well, the company has to have a certain amount of materials and supplies on hand to do their ordinary construction work.

Q. But when you go into your capital account, you take into consideration all of those elements, don't you, when you make a reproduction cost? Let me put it differently, because I am not quarreling with you. You think that if in

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[fol. 2462] those materials and supplies, there were those materials and supplies that were designed for new construction, like a new gas well, there would still be no need of separating them from those designed for repair and replacement?

Mr. Turner: That is for the purposes of working capital, Mr. Butler?

Mr. Butler: Yes, I am talking about working capital.

A. The materials and supplies that we take into consideration are the materials and supplies that the company uses in their everyday business.

Q. Whether it goes into new development or into repairs and replacements of old development?

A. I am not able to answer that question.

Q. Why not?

A. Because every company we have examined and companies that we are building and operating, they all have

materials and supplies on hand to carry their business on.

Q. Oh yes, I know, but this is a rate case. You have learned that, haven't you?

A. Yes, sir. You couldn't do it without materials and supplies.

Q. All right. If that is the best answer you can give. Any way you did not separate them along the lines I have indicated?

A. No, it is impossible to separate them.

[fol. 2463] By Chairman Geiger:

Q. Did you separate your money along the same lines, so much money for the new production and so much money for repair of the old? Or did you put your 15 per cent in as covering both reproduction and maintenance of old lines or production of new lines?

A. Fifteen per cent—I don't know about that per cent.

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[fol. 2464] Q. You said you had fifteen per cent?

A. That is something else. That was the cash in the bank over the amount of materials and supplies and the operating expenses and the cost of the gas—they had over that 15 per cent in the bank.

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[fol. 2465] By Mr. Butler:

Q. Do you in any of your volumes show the amount of materials and supplies on hand?

A. In detail?

Q. No.

A. No, sir. We show it the same way we show it in every case.

Q. No inventory, in other words, of materials and supplies on hand?

A. Not in our report, but I believe we have working papers which show it.

2137

[fol. 2466] Q. All right. Now what else have you for me, Mr. Antonelli?

A. You have asked me about the amount that represents the material and supplies used in the working capital. The amount is $1,535,600.00. This amount does not represent any materials and supplies used for the distribution system.

We have excluded the distribution system account, and I received this information in letter form, the letter headed "Columbia Engineering & Management Corporation", and the man who gave me that information is E. R. Keener.

Q. Of your organization?

A. No.

Q. Of the Columbia Engineering & Management Corporation?

A. Columbia Engineering & Management Corporation, working with The Ohio Fuel Gas Company.

Q. Is that a letter that I may see for a moment?

A. Yes, I would like to finish though.

Q. Go right ahead.

A. When we obtained this letter we wanted to know

2138

[fol. 2467] more about how these costs were made and what they consist of, so I had one of our men—or it might have been a Company man, I don't know, but anyhow, it was checked by one of our men, to find the details of this materials and supplies, and he had made a complete list of the materials and supplies. Then we priced this material and supplies based on prices current—present-day prices, and the amount that we got was over the one that the Company has given us; namely, the amount that we have found was $1,617,483.93; however, we did not use this figure; we used the figure given to us by Mr. E. R. Keener. Would you like to see this?

Q. Yes, let me glance at it, Mr. Antonelli. Mr. Antonelli what investigation did you make to ascertain how much or what part of the materials and supplies represented by the materials and supplies accounts were for capital construction?

A. I did not make any such investigation because I found that the amount as shown here is an amount that a company of this size had to have to carry their overhead business, and some of the materials and supplies there shown in this list probably are for new construction, but how much I could not tell you.

Q. Well, that is exactly it; I am not asking you in an abstract way to say that this is a proper amount. You produce this amount, an actual inventory, an actual appraisement?

A. Yes, sir.

Q. Now you say there undoubtedly part of it was for capital construction but you have no way of determining the amount?

A. No, sir.

[fol. 2468] Q. And you did not think it was essential for

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[fol. 2469] determination, as I understand?

A. No, and I was not instructed by Mr. Lerch to do that.

Q. Oh, well, if you had thought it proper you would not have waited for instructions, would you—or would you?

A. Well, if I thought about it I would ask Mr. Lerch and get his reaction on the matter.

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[fol. 2470] F. H. Lerch further testified on cross-examination:

Q. Now, another point. Please help me out on this. Materials on hand. Assume that a very considerable part of those materials on hand, and that is a pure assumption and has no relation for the moment to the facts, assume that a very considerable part of the materials on hand are for capital construction, do you think that they should be considered in determining the amount of working capital?

A. There would be a question if that were an unusual amount or an unusual condition. I would say it would be unusual also if it did exist, because it is not the custom of any of these gas companies to put into stock any more than they need for maintenance or protection of the service of the property. If they are going to do capital construction, they have a program for it, and they buy the material for it completely, and if they happen to have a little excess stock, they may work their stock down, but only to a limited degree and perhaps it would be trivial compared to the construction itself. That is our case exactly. I know how that works, because if we have a construction program, and we feel we are a little short on our materials and supplies——

Q. You mean down in Louisiana?

A. Yes, sir. We just put a lot in our construction pro-

2337

[fol. 2471] gram, so that we will have a bigger stock when the time comes to protect our service and carry on the service.

Q. When you have a rate case down there, we will come down.

A. I wish you would.

Q. For the moment I do not suppose you actually know the situation in respect to The Ohio Fuel Gas Company?

A. You mean regarding the nature of the materials and supplies they have?

Q. Yes.

A. I know what they were at the time of this inventory.

Q. Yes, but as to whether they were for capital or otherwise?

A. I don't know of my own knowledge.

Q. Then I am trying to get you back to the original question, which is purely theoretical, and as I said, has no relation to the facts in this case—those will be settled otherwise—but if that condition existed and a considerable part of the materials were for capital account, for work and expense that would go to capital account, you surely would not include them in your computation of working capital, would you?

A. We did not include them in the computation of working capital, but we might, if it were so apparent, go to the extent of showing what was construction working capital. I don't know of any case except one where that matter was actually handled.

Q. You cannot quite bring yourself to a decisive answer, can you?

A. No, because I don't think that even on your assumption we would throw out any part of that working capital.

Q. Then that is an answer except that you——

A. I made the same answer before.

Q. You have answered in the reverse. What I want to

[fols. 2472 & 2473] know is whether you would consider the amount of that material when you are determining your amount of working capital?

A. Let me answer that this way. If that is in materials and supplies account, so considered by the company, we would consider it working capital.

Q. Suppose the fact—I am giving you the fact——

A. No, you are not giving me the fact.

Q. I don't care where it is. I have told you to assume that a very considerable part of that is for capital account and capital construction.

A. In the materials and supplies account of the company?

Q. Yes.

A. You didn't say that. You said something entirely different. We would probably investigate and find out why they had such an excessive amount of materials and supplies and probably make an allowance for it.

[fol. 2474] Incomplete Construction

The Ohio Fuel Gas Company

26

[fol. 2475] Construction Work in Progress

As of December 31, 1929, the incomplete construction amounted to $234,295, of which $228,184 represented investment in new wells.

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[fol. 2476] F. H. Lerch further testified on cross-examination:

Q. Mr. Lerch, in construction not completed, there is a considerable sum, and the most of that evidently is con-

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nected with new gas wells. Why do you carry that into your rate base if they are not completed?

A. Because that is the expenditure in investment by the company in property.

Q. But it is not finished yet?

A. It is an expenditure. That much of it is done and the company certainly is entitled to the return on the incomplete investment, just the same as they are on the working capital. It is more or less a change of status of certain materials, and so forth.

Q. But don't you understand in respect to gas wells that you are drilling additional wells as againts wells that will be abandoned? Do you think that you ought to put in construction *not completed* wells not completed, and not take into consideration that as against the fact that there will be wells abandoned?

A. Yes, but they are not abandoned. They are in use.

Q. Neither is the other completed?

A. No, but it represents an expenditure. That is the theory on which we have included it.

[fol. 2477] Q. That is the theory? All right.

By Chairman Geiger:

Q. Now, let me get that straight in my mind. We will use for illustration an assumption that a thousand wells are needed to supply your customers. You will in an extra one hundred wells, but you do not tap them into the pipes, because the thousand is yet sufficient to supply your customers. Then you finally take out a hundred that are exhausted and put in the other hundred that you have had in reserve. Do you claim that during the time the hundred that are to be removed from operation are actually in operation, and the hundred that you have drilled to take their place have not yet been put in, that you may have for

2335

[fol. 2478] the purposes of your rate base the entire number of wells, including the hundred that you are going to take out and the hundred you are holdinf in reserve, that is, 1,100 wells, instead of a thousand wells? Do you get the question?

A. Yes, I got the question. I will answer it yes.

Q. That is, you would say the other are all used and useful?

A. Yes, sir.

Mr. Turner: Your Honor assumes a static demand.

Chairman Geiger: I know.

Mr. Turner: But isn't it a fact that in this utility service they must be prepared in advance of demand; they must be prepared to meet all of the demands.

Chairman Geiger: Well, we have the same case in telephone companies. Here is an over-service in a conduit. It is put in because in the future we are going to put some wires in that conduit.

Mr. Turner: We have the same——

Chairman Geiger: Now, the question is, when is it used and useful?

Mr. Turner: We have that in a lesser degree because of the fact that it cannot be a separate conduit—we have the same thing in the question of pipe, because in the early days of the company, or in all excepting a few peak days,

you cannot have that pipe fully used, but yet it is used and useful.

Chairman Geiger: It is a question of what property is used and useful at any given moment.

Mr. Turner: Exactly so, and I call Your Honor's attention to the fact that as you asked the question, I thought it assumed a static demand.

2336

[fols. 2479 & 2480] Chairman Geiger: All right. Is there anything further of Mr. Lerch, Mr. Butler?

By Mr. Butler:

Q. When those wells are completed, they go into your property with all the allowances that you make for the rest of the property, cost during construction and all of your overheads and everything, don't they, in any new consideration?

A. In the next valuation they might or might not be in there, yes.

[fol. 2481] Annual Allowance for Depreciation

The Ohio Fuel Gas Company

4380 and 4381

[fol. 2482] J. Paul Blundon further testified:

Mr. Turner: And you have no amortization in here at all?

The Witness: Not an amortization; I have 3.6 per cent allowed for the lessening in value of the property.

Mr. Turner: But no amortization?

The Witness: Call it what you will.

Commissioner Bricker: What is that per cent?

The Witness: 3.6 per year.

4492

[fol. 2483] Cross-examination:

Q. Let us turn to Page 11. Take Page 11 of Exhibit 74 and look at the items 206 and 220, rights of way. You have allowed neither depreciation nor amortization for those items, have you?

A. 206, we have allowed no depreciation.

Q. Or amortization?

A. No, sir.

Q. How about 220?

A. 220 we have allowed no depreciation.

Q. Or amortization?

A. No, sir.

Q. How would you expect the company to get its money back from those two items?

A. I don't believe that it will need to get its money back.

Q. You assume that a natural gas utility will last forever?

A. I do, without it is definitely proven to the contrary, which I have never so far seen.

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[fol. 2484] Q. The factor that you have used for depreciation of 3.6 is comparable to that used by the West Virginia Commission of 5.27 is it not, as shown on page 14 of Exhibit 74?

A. I would prefer not to answer that question first because I do not know fully what the Commission had in mind in arriving at 5.27 except that they conclude that they include amortization. I don't agree to the principle of amortization. And so the figures would hardly be comparable. As used on page 14 of my exhibit I have shown under the West Virginia basis what that Commission found; under the Ohio basis, my opinion.

Q. Under the West Virginia basis did they apply that factor of 5.27 to reproduction cost new or to present value?

A. They applied it to present value.

Q. And do you apply your 3.6 to present value or reproduction new?

A. Present value.

Q. So that you have no allowance for amortization or depreciation or extraordinary repairs or any other thing in that category except this 3.6?

A. I have no allowance except the 3.6. The 3.6 covers some items that you mentioned.

Q. And what else?

A. The 3.6 covers the annual lessening in value of the company's property.

Commissioner Bricker: You said a moment ago that you did not agree with the theory of the West Virginia Commission in regard to depletion or amortization, as you put

it. In what way do you not agree and what is your reason for it?

The Witness: I do not agree because successive rate cases in West Virginia have not shown a depletion or that it was a utility of limited life.

Commissioner Bricker: Well, you know as well as any-

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[fol. 2485] body else on the street would know that regardless of what the records in West Virginia would show, that there is a depletion going on, do you not?

The Witness: There is a using up of the gas, yes, sir, but new fields are discovered and brought in so—let me give an example of that, that in West Virginia the gas reserves of the company in 1928 were greater than they were in 1923.

Mr. Turner: Reserves?

Commissioner Bricker: But there is actually a depletion. If it is taken up in some other system of accounting or in some other added assets to the company doesn't wipe out the fact that there is an actual depletion or a using up of the property of the company?

The Witness: Yes; as to using up of the physical property and the using up of the wells, for instance, that is provided for in determining that 3.6. That 3.6 is to apply to all the property of the company, the physical property as well as the leaseholds.

Q. What is your factor for wells?

A. 6.6, which was used——

Q. That is on page 11 and gives a life of what, 15 years?

A. No.

Q. An average life to the well of 15 years?

A. Approximately 15 years, yes, sir.

Q. Yes, sir. Now, do you contend that the wells on the No. 1 leaseholds of The Ohio Fuel Gas Company will last an average of 15 years from the time that they were brought in?

A. On the basis of the wells that are in service now, yes. Now, it is possible that wells have gone out in a shorter period of time, which, I think, is indicated by an examina-

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[fols. 2486 & 2487] tion of the average age in years in a different field and also an examination of the column of the average per cent depreciation per year. But on the

basis of the rock pressure depletion method we find that those wells that are in service now have depreciated at the average of 6.64 per cent per year, which indicates an overall life of 14.6 years.

Q. Well now, if the history——

A. In other words, if the depreciation is as much in the future as it has been in the past, that will be their life.

Q. If the history of the company shows that the average life of the wells in Ohio is 7 years, then ought not that 6.6 be increased?

A. That 6.6 should be increased, if that is a true statement of fact, and the per cent condition of the existing wells should be decreased.

Q. What provision have you made here in your depreciation for change of fields?

A. No provision has been made in the annual amount for depreciation for change of fields as such.

[fol. 2488] Allocation

The Ohio Fuel Gas Company

211

[fol. 2489] F. W. PHILLIPS further testified:

Q. Are you familiar with the operation of the Wheeler Compression Station?

A. Yes, sir.

Q. Explain briefly just what the Wheeler Compression Station is and what it does?

A. The Wheeler Compression Station is a station located in Fairfield County. There are 16 compressors located in the station ranging in horse power from 60 to 1150, or a total horse power of about 16,000. This station compresses gases delivered to it through various pipe lines from West Virginia and Ohio fields. In some instances gas is compressed through three stages of compression due to its low

212

delivery pressure in the Wheeler Station and high discharge pressure necessary to meet market requirements.

[fol. 2490] Q. Are you familiar with the pipe lines which discharge gas into and which carry gas out of Wheeler station?

A. Yes, sir.

Q. Are you familiar with the amounts of gas which come into Wheeler Station from various sources and the markets to which the same go after leaving Wheeler Station?

A. Yes, sir.

Q. Have you prepared an exhibit showing the location of this Wheeler Compressing Station, the pipe lines entering and discharging from the same and the amounts of gas received from various sources and delivered to various markets from that station?

A. I have. The exhibit consists of two maps taken from our engineering department records as to all pipe lines delivering has to Wheeler Station and all pipe lines leaving Wheeler Station for markets. It also contains a statement of the gas received at Wheeler Station, and gas sales in the various markets as extracted from our gas analysis earnings.

Q. I hand you what has been marked as Company Phillips Exhibit No. 23 and ask you to state if that is such exhibit?

A. Yes, sir.

Q. Now refer, please, to this exhibit and indicate by reference to the map the lines which carry gas into Wheeler Station as distinguished from the lines which carry it out. Now go very slowly on this so we can follow it on the map and tell us which map you are using when you are speaking.

A. I guess by holding it up is the best policy to identify the map. The intake lines into our Wheeler Compressing

213

[fol. 2491] Station are as follows:

A. 60, 20 inch, which transports West Virginia gas.

Q. Wait; wait a minute; let us find E 60; it is on the left hand side. All right, Proceed.

A. (Continuing): R 25, 12 inch, which transports gas from Kenova, West Virginia, and from Jackson County, Ohio. Line R, which is composed of 8 and 10 inch mixed pipe, transports similar gases as does R 25 from Kenova, West Virginia, and our Jackson County, Ohio, fields. Line E, 18 inch, transports gas from the Vinton county field which is located in southern Ohio. Line G is an 8 inch line which extends north to the vicinity of Buckeye Lake gathering numerous gases and transporting same to Wheeler Station. R. 280, 8 inch, transports gas from Hocking County to

Sugar Grove Compressing Station. Two 16 inch connecting gas company lines deliver gas from West Virginia fields and Ohio fields to Sugar Grove Compressing Station. All gases delivered into the Sugar Grove Compressing Station are discharged to Wheeler Compressing Station where it is necessary to again compress a part of this gas to higher pressures needed to meet market requirements.

Commissioner Bricker: That comes over through K 30?

The Witness: No, sir.

Q. Now indicate in the same way the lines which carry gas out of Wheeler Station, referring now to the first map.

A. Line Z, 10 inch line, transports gas from Wheeler Compressing Station to Springfield and Dayton territories.

Line B-50, 16 inch, transports gas from Wheeler Compressing station to Columbus and points west of Columbus.

Line A, 18 inch, transports gas from Wheeler Com-

214

[fol. 2492] pressing Station to Dayton, Springfield and Cincinnati markets.

Line B-25, 12 inch, transports gas from Wheeler Compressing Station to Columbus.

Line H, 8 and 10 inch mixed line to Zanesville, is both an intake and discharge line at various intervals, for the reason that due to various compressing stations and production being located along this line between Wheeler Compressing Station and Zanesville, at various intervals a surplus production exists in this district and it is necessary that this surplus gas be taken out of this line at Wheeler Compressing Station. At other times, especially during extreme heavy demand periods, when the production as aforementioned will not meet market requirements, it is necessary to discharge gas from Wheeler Compressing Station into this line for Zanesville consumption.

Lines T and T-50, which are composed of mostly 10 inch pipe, although a small or a short section of 12 inch pipe is in this line, transport gas from Wheeler Compressing Station to northern Ohio markets the largest of these markets being Toledo.

Line C, 8 inch line, transports gas from Wheeler Compressing Station to Chillicothe.

K-30 and K-31 shown on our exhibit as two 10 inch lines, swedge into one 16 inch line about 2000 feet from Sugar

Grove Station, and transport gas from Wheeler Compressing Station to Newark and other markets.

Q. You have stated that certain of the discharging lines from Wheeler Station transport gas to Columbus, Cincinnati and Dayton markets. Did all of the gas used to supply

215

[fol. 2493] the Columbus, Cincinnati and Dayton markets in the year 1929 pass through Wheeler Station?

A. No, sir.

Q. How much gas was delivered to Columbus, Cincinnati and Dayton markets from sources other than Wheeler Station?

A. 1,685,405,000 cubic feet.

Q. How much gas was consumed at the Wheeler and Sugar Grove Compressing Stations during the year 1929?

A. 777,439,000 cubic feet.

Q. What was the total volume of gas delivered into Wheeler Compressing Station from all sources during 1929?

A. 34,283,397,000 cubic feet.

Q. How much of this volume of gas came from West Virginia?

A. 21,383,457,000 cubic feet.

Q. Leaving how much of the gas delivered to Wheeler Compressing Station from Ohio during the year 1929?

A. 11,909,974,000 cubic feet.

Q. What was the percentage as between West Virginia and Ohio gas?

A. The percentage of West Virginia gas delivered into Wheeler Station during the year 1929 was 64 per cent, and the remaining portion of Ohio gas represented 36 per cent.

Q. What amount of gas was delivered from Wheeler Station and sold in the various markets supplied through that station during the year 1929?

A. 32,596,992,000 cubic feet.

Q. What was the total volume of gas sold in the various markets being supplied through transmission lines leaving Wheeler Station?

A. 34,283,397,000 cubic feet.

Q. Of this amount of gas how much came from West Virginia?

A. 21,383,457,000 cubic feet.

Q. And how much from Ohio sources?

216

[fol. 2494] A. 12,899,940,000 cubic feet.

Q. What was the percentage as between West Virginia and Ohio?

A. The percentage of West Virginia gas supplied to these markets as compared with the Ohio production supplied to these markets was 62.4 per cent West Virginia and 37.6 per cent Ohio gas.

Mr. Turner: That is all we have with this witness. Do you want to cross-examine him now or let him go until later?

Mr. Butler: Oh, obviously, I cannot grasp this all at once.

Mr. Turner: Well, that is the same stuff; you have had every word of that since September 26th.

Mr. Butler: Oh, no.

Mr. Turner: Oh, yes, you had that exhibit since September 26th, and the testimony as well.

Mr. Butler: The testimony?

Mr. Turner: Yes the questions and answers. All right, we will take another witness then.

Mr. Turner: We offer in evidence, if the Commission please, Company Phillips Exhibit No. 23.

703

[fol. 2495] Frank W. Phillips, called as a witness, testified as follows:

Cross-examined by Mr. Butler:

Q. Company Exhibit No. 23. It is these maps. You may want to look at them. You have got them up there. You are Mr. Frank W. Phillips?

A. Yes, sir.

Q. You are the pressure control superintendent?

A. Yes, sir.

Q. That takes in the whole of Ohio?

A. That part of Ohio that the Ohio Fuel serves.

Q. You are in charge of the pressure stations and all of your mains up to the point where you deliver it to the distributing companies?

A. I am in charge of the pressure, not the mains, as you have stated; I am in charge of dispatching the gas through the mains.

Q. Well, you are in charge of the pressure up to the point where it is taken by the distributing companies?

A. Yes, sir.

Q. And where the Ohio Fuel Gas Company itself is a distributor in a community your work stops at the——

A. Ceases at the town border.

Q. At the what?

A. Town border.

[fol. 2496] Q. Now, this Wheeler compressor station is about how far from Columbus?

A. About 35 miles.

704

[fol. 2497] Q. That is at Sugar Grove?

A. Fairly close to Sugar Grove, yes, sir.

Q. Down below Lancaster?

A. Yes, sir.

Q. What other pressure station is under your direction?

A. That is, compressing station? There are 39 compressing stations.

Q. 39, all under your control?

A. Yes, sir.

Q. Wheeler is the largest?

A. Yes, sir.

Q. Where is there any other very large one?

A. There is one adjacent in Wheeler, Sugar Grove station, within a few miles of Wheeler. There are numerous stations located in the south field. By referring to the map in this exhibit I think you will be able to see the approximate location of these stations.

Mr. Turner: Wheeler is right at the gathering point, Mr. Butler, and Sugar Grove is right off to the right. Sugar Grove shows on the bottom there.

Chairman Geiger: I think those maps were explained to us in direct examination.

Mr. Turner: Yes.

Q. Mr. Phillips, do you bring down from the north any gas to Wheeler or Sugar Grove or Grimes?

A. Gas is distributed or marketed by the shortest haul, and we would not have occasion to bring gas from the northern part of the state to the southern part of the state.

Q. So you never do that?

A. No, sir, unless something out of the ordinary requires it, something of that nature.

Q. Do you bring any from Mt. Vernon down to Wheeler or Sugar Grove?

A. We have on days that we have had our eighteen inch

705

[fol. 2498] line shut off between Linden and Treat compressing station; there is a small amount of gas from Homer Station to Columbus. The sixteen inch line between Wheeler compressing station and Treat is a floating line that gas can be dispatched from either direction.

Q. Do you take charge of the Ohio gas at the wells?

A. In one sense of the word, Mr. Butler, I order the wells on and off, our own wells. Of course, the purchased gas is turned on in the winter time and then there is a certain prescribed part of the winter delivery that is consumed in the summer time.

Q. Well, when you purchase gas from a well it comes under your control as soon as it gets into your pipe?

A. Yes, sir.

706

[fol. 2499] Q. Will you tell me the volume of Ohio gas that is produced south of the Wheeler and Sugar Grove stations and also adjacent to the line running from Kennedy up to Sugar Grove?

A. In the enclosed black you will notice the figure set in there, which is arrived at from the compressor displacement on the maximum day, which would be indicative of our maximum production. That is not our own production. That is purchased and our own production combined.

Q. All Ohio gas?

A. Yes, sir.

Q. The amount of West Virginia gas handled by your compressor or pressure stations is not shown on these fig-

707

[fol. 2500] ures given on the Ohio part of the map?

A. It shows, Mr. Butler, if you will refer to the block, at Ravenswood—it will show you the volume delivered from Ravenswood. It will also show you the Kennedy gas. It will also show you that part of the gas coming up through R-300.

Mr. Turner: Ravenswood is across the river.

Mr. Butler: Yes, so is Kennedy.
The Witness. Yes.

Q. Lick is on the other side?
A. No, sir, that is in Jackson County.
Q. Is that an Ohio Station?
A. That compresses the Ohio gas.
Q. Then Ravenswood and Kennedy gives the West Virginia gas?
A. Part of the West Virginia gas.
Q. Where is that shown on this?
A. The R-300, if you will notice at the bottom of that page there is an eighteen inch line that goes to Kenova Station, just on the south side of the Ohio River. That is another transporting line, transporting West Virginia Gas.
Q. And the amount of gas is given in figures alongside of the line?
A. Yes.

835

[fol. 2501] Now the second is, have you or will you have an exhibit where you allocate the proportional use of all of this property to The Columbus Gas & Fuel Company?

Mr. Turner: No, sir.
Chairman Geiger: Do I understand that you claim that your total net cost of service for furnishing gas at your respective gateways is 61.61 cents?
Mr. Turner: Yes, sir; that gives a return of eight per cent on the Ford, Bacon & Davis valuation, which we will introduce a little later.

836

[fol. 2502] Mr. Butler: Well, if the Commission please, the reason I asked my second question is rather obvious. When we were adjourning for the Christmas holidays Mr. Turner remarked rather briefly that Ohio is a unit. Now this exhibit apparently carries out his declaration.

Now we want to say to the Commission, without any argument at this time, that this attempt to make Ohio a whole unit and avoid the proper allocations of cost and expense

837

[fols. 2503 & 2504] in respect to Columbus has no foundation; it must fail; and that unless this be followed by the proper allocations it is worthless and cannot be used.

Mr. Turner: We might as well meet that now. It will not be followed by any allocations.

The Ohio Fuel Gas Company has no property dedicated to the service in Columbus. The Ohio Fuel Gas Company figures are brought in here by reason of it being a related company. If it were not a related company the contract between the two companies would be final and there would be no question to go back of. That was settled in The West Ohio Gas Company case here.

You are going into this gate rate solely because of the ownership of the stock of The Columbus Gas & Fuel Company by a holding company, which also owns the stock of The Ohio Fuel Gas Company.

Now it is not The Ohio Fuel Gas Company whose property is furnishing this service; it is the Columbus Gas & Fuel Company. They have no gas of their own; they buy gas. And in order for the Commission to determine whether or not these companies have dealt fairly between themselves, whether or not there has been an undue siphoning out of the profits of the Columbus Company by a related company, the Commission has held in the Dayton case that before they will pass upon the question finally they must have the cost data at the city gate.

Now we are attempting to produce that cost data at the city gate; that will be based upon a valuation; this cost analysis if based upon a valuation and an assumed return of eight per cent.

Certainly if the company is not getting anything like

838

[fol. 2505] 61 cents but only an average of 58 cents, the company paid income tax upon all of its business which consists in delivering to two hundred and some cities in this State gas at retail and not upon its business in city gates only. That should be a conclusive answer to your Honor's interrogatory there. I would see the force of it if this is all the business that the company did, but it has lots of other business.

Chairman Geiger: I think I was wrong in that. Your income tax is paid before the dividend?

Mr. Turner: Oh, yes.

Chairman Geiger: And this sets up an eight per cent dividend?

Mr. Turner: Yes, and assumes we are getting a profit on this gate rate.

Chairman Geiger: I see the distinction.

Mr. Turner: All right. But we do not intend to allocate and if counsel want to save time in the matter we are willing to go into that matter now; we do not intend to allocate and claim we have no right to allocate, and that there is nothing to allocate; that this matter is a matter of fair dealing between two companies, whether or not The Ohio Fuel Gas Company is selling to The Columbus Gas & Fuel Company at a fair price; I do not see how you could allocate; I could not begin to think of a way to allocate, if I admitted that it was proper.

[fol. 2506] Mr. Strickler testified on redirect examination:

1462

[fol. 2507] Mr. Turner: May I ask, you said two fields; tell them about the Homer field, where the Homer field is.

The Witness: Well, the Homer field lies in Knox County and counties adjoining that in the north and the original field that supplied Columbus was from Fairfield and Licking County; those lines are still used as feed lines to the City of Columbus.

Commission Bricker: That is Exhibit No. 23 that has those transmission lines on it?

1462

[fol. 2508] Mr. Turner: Those are merely transmission lines; I think we have another exhibit—no, Exhibit 23 shows it.

Mr. Butler: We do not have our Exhibit 23 here.

1463

[fol. 2509] Commissioner Bricker: Use this one if it will help you, Mr. Butler. (Handing same to counsel.)

Chairman Geiger: All right, Gentlemen, I think we are ready to go ahead. We understand how you get it in. It comes in from different fields by different field lines. I think we understand it, Gentlemen.

Mr. Butler: Well, if the Commission please, as far as any cross-examination on that particular thing is concerned I should want to examine the maps and know what I am

talking about. There is not any use in my trying to examine with respect to that map on the board there, which does not have all of the information and which is a very proper but crude illustration of the situation.

Mr. Turner: May I withdraw the testimony then, because I don't intend to bring Mr. Strickler back from Florida again.

Mr. Butler: Well, now, you are just making trouble. I said as frankly as I could, and I repeat it, I said it to you, and I said it to Mr. Strickler, that if we did not get Mr. Strickler back there should be no prejudice against you. He need not come back on this account and he can testify when he does come back, out of his order. There is no desire to embarrass him and you, Mr. Turner.

Mr. Turner: All right, I will withdraw that evidence.

Mr. Butler: Oh, well, if you don't care to be fair about it——

Chairman Geiger: Do you wish to withdraw all the evidence since the noon hour?

Mr. Turner: Since the noon hour.

1464

[fol. 2510] Chairman Geiger: Well, you are in control of your own evidence; motion allowed.

1494

[fol. 2511] F. W. Phillips, recalled as a witness, having been heretofore duly sworn, testified as follows:

Examined by Mr. Turner:

Q. Mr. Phillips, I want to direct your attention to what has been identified in this case as Company Exhibit No. 23, I believe it is. Have you discovered any error in figures in that exhibit?

A. Yes, sir.

Q. Now just a minute until I give it to the other side.

Commissioner Bricker: For the first two pages?

Mr. Turner: Yes; I want to substitute them.

Q. I hand you what has been marked Company's Exhibit 23-A and 23-B and ask you to state whether those are the corrected parts of Exhibit No. 23 which you wish to substitute for what was there before?

A. Yes, sir, that is the corrected copy.

Q. Now, Mr. Phillips—and Gentlemen—come down to the line "Retail Sales"; it is the second below the deliveries; there are a lot of deliveries and then 30,000,000 and then 3,000,000; give the corrected figure for Retail Sales, please.

A. 5,555,773,000.

Q. And then that gives a grand total figure of what?

A. 36,203,007,000.

Q. Does that affect any other figures than that total?

A. It affects those figures shown below.

Q. In the summary?

A. Yes, sir.

1495

[fol. 2512] Q. Which ones?

A. It would show that delivery of gas being delivered to various markets and their percentages.

Q. Well, just go right ahead; now is the total intake, Wheeler compressing station, less fuel consumed, Wheeler and Sugar Grove Station, any different?

A. No, sir, that is not affected.

Q. Total volume of sales of gas leaving Wheeler compressing station; is that changed?

A. 30,602,056.

Q. That has been changed?

A. Yes, sir.

Q. Now has the next figure been changed?

A. Yes, sir.

Q. Give that.

A. Additional Ohio gas routed to supply Columbus, Cincinnati and Dayton markets, sales, 5,600,951,000; leakage, 361,049,000, or the grand total routed to those markets was 5,962,000,000.

Q. Now does that change the total West Virginia gas delivered from the Wheeler compressing station to the above markets?

A. No, sir, it does not change the West Virginia gas.

Q. What does it change, if anything?

A. It changes the Ohio gas and the per cent of West Virginia and Ohio gas.

Q. Give those figures, please?

A. The total West Virginia gas delivered from Wheeler compressing station to above markets is 19,622,299,000; the

total Ohio gas delivered from Wheeler compressing station and other Ohio sources and stations to above markets 16,580,708,000.

Q. All right.

A. The per cent of West Virginia gas delivered to Columbus, Cincinnati, Dayton and to Toledo markets 54.2 per cent; per cent Ohio production delivered to Columbus, Cincinnati, Dayton and part Toledo markets 45.8 per cent.

1496

[fol. 2513] Q. Now where does that additional gas used to supply Columbus, Cincinnati and Dayton markets come from?

A. It comes from the Ohio fields in the eastern fields, which would include Noble County, Washington County, Tuscarawas County, Guernsey County, Muskingum County, Perry County, Vinton County, Richland County, Jackson County, Gallia County, Fairfield County, Knox County, Ashland County, Coshocton County, Medina County and Wayne County.

Q. Through what compressor station?

A. It would pass through many different compressing stations, being delivered to Treat Station from the north.

1497

[fol. 2514] By Mr. Turner:

Q. Starting, say, the year 1914, where did The Columbus Gas & Fuel Company get its supply of gas?

A. The Columbus Gas & Fuel Company received its gas, from the north, from what was known as the Knox County field. Their lines extended slightly into a few townships in the Licking County field.

On the south The Columbus Gas & Fuel Company received their supply of gas from the Failfield County field, and they also had a few lines extending into the Licking County field—very few.

Q. Now where was Crawfis Station?

A. Crawfis Station was located fairly close to Lancaster.

Q. And what size pipe, if any, came in from there?

A. There was a 12 inch discharge line between Crawfis Station and what is known as Alum Creek Station on the Winchester Pike.

1498

[fol. 2515] Q. Now take the Greenbush Station, where was that?

A. That was over close to Appleton in Licking County and that station discharged its gas through a 10 inch line; it is known now as St. Marys Station.

Q. Out in the outskirts of Columbus?

A. Yes.

Q. Then did The Columbus Natural Gas Company deliver gas from Union Station?

A. Yes, sir.

Q. To Columbus?

A. Yes, The Columbus Natural Gas Company was a producing company that most of the production was in the Licking County field and they delivered gas through a 10 inch line to The Columbus Gas & Fuel Company which tied in with The Columbus Gas & Fuel Company at a point near Fifth Avenue.

Q. Now the Cambridge field developed in what year?

A. About 1925 or 1926.

Q. What was their delivery per day, do you recall?

A. At the height of the Cambridge field that field would deliver, without any compressing stations, 60,000,000 a day to the markets.

Q. Was any part of that delivered to Columbus?

A. A very large part.

Q. Now how many compressing stations at the present time are on the Cambridge lines?

A. There are four compressing stations pumping directly on the Cambridge field and one compressing station pumping in part on the Cambridge field.

Q. And what is the production per day with those five compressing stations?

A. Three and a half million per day.

Q. Now in the year 1914 how many compressing stations did the Columbus Gas Company have?

A. Two.

Q. Where were they?

A. Greenbush, located near Appleton, and Crawfis Sta-

1499

[fol. 2516] tion located near Lancaster.

Q. How many compressing stations has The Ohio Fuel Gas Company at the present time?

A. 39.

Q. How many gas wells has The Ohio Fuel Gas Company?

A. Approximately 3800.

Q. From how many wells does The Ohio Fuel Gas Company purchase gas?

A. Approximately 1200.

Q. You have in an exhibit here the lines; I do not want to go over what we went over before, but as I understand Line E. and R300 and your Exhibit 23, and two Connecting 16 inch lines transport the gas from West Virginia at the present time; is that correct?

A. Yes, sir.

Q. Now Line H. delivers the surplus Elk and Cambridge gas to Sugar Grove during warm weather?

A. Yes, sir.

Q. And that same line is used to discharge gas to Zanesville during the colder weather?

A. Yes, sir.

Q. Now take this Exhibit No. 23 and state whether or not that is representative of the year around or representative of a season or a day or what?

A. This map is only indicative of one particular day.

Q. Is the day given there?

A. Yes, sir; on the following day or the day preceding this day the gas was moved in different directions and there is not any two days or any two seasons that the gas moves in the same direction and in the same quantities.

Q. You have already stated your position with The Ohio Fuel Gas Company, but that is some days or weeks ago, and for the purpose of refreshing us all, tell us just what your job is.

A. My position is superintendent of the pressure control

1500

[fol. 2517] of The Ohio Fuel Gas Company.

Q. In a word, give us the duties of that job?

A. The pressure control department arranges for the various wells to be turned on in the fields, the number of wells necessary to be turned on and shut in, needed to meet the market requirements. The pressure department arranges for deliveries of gas from West Virginia fields. The pressure department arranges for the compressing stations to compress the gas to higher pressures and route the gases into different transmission and market lines. The pressure department further routes the gas through the network of field and market lines of The Ohio Fuel Gas Company.

Q. Do your duties involve the picking out of the offset wells that are to be drawn from today?

A. Yes, sir.

Q. Now I wish that you would, as briefly as possible, sketch to the Commission and counsel on the other side the policy of the company in withdrawing gas from its fields, giving the Commission the picture of why it is necessary to draw from an offset well and draw from a competitive—or near a competitive company, etc.

A. There are several different classes of wells—or we might term it classes. Taking the lighter rock pressure wells first, or what we might term casinghead wells, those wells produce fluid, whether it be water or oil, and in most instances the rock pressure is very light so that those wells have to be drawn into the line in most part at all times. By the shutting in of that class of well it is possible to reverse the flow of the water or oil through the sands and injure the well seriously or completely kill the well.

1501

[fol. 2518] Q. Do I understand you then that those must be kept flowing all the time?

A. Yes, sir.

Q. Go to the next class?

A. The next class of wells are those wells that are offset to a competitive or foreign company who takes the gas to foreign markets, which might be The East Ohio Gas Company or other gas companies. It is practical and economic to keep our wells turned into the line that may be offsetting a foreign company's wells that they are drawing from.

Q. Do I understand you correctly that if you did not take the gas from those offsetting wells you would lose it to the other companies?

A. Yes, sir, because the sands are connected underneath the surface of the earth.

Q. Go to the next class.

A. The next class of wells are those wells offsetting purchased gas. I mean by purchased gas that class of production that small producers are selling to The Ohio Fuel Gas Company; at certain seasons of the year we are obligated to take the full flow of the purchased gas contracts.

It is business and it is practical and economic that we should keep our wells on at all times the purchase gas wells are on because the same conditions exist, that the sands are

interconnected underneath the surface of the earth, and if we shut our well in offsetting a purchase well, that it would tend to increase the delivery from the purchase well and we would thereby lose that gas.

Q. In other words, you would take it away from your own well out of the same sands?

A. Yes, sir.

Q. Go ahead, if there is any other.

1502

[fol. 2519] A. The next classification of wells might be those wells that are slightly competitive, that may not be exactly on the same farm, but we would consider that the sands were so interconnected that it would be possible for a foreign company taking its gas to other markets or a purchase contract taking our gas; so that we next operate those wells that are slightly competitive.

Q. All right; now have you given all the wells in the order that you operate or take from them?

A. We still have another class of wells that we might consider absolutely protected wells.

Q. And you take from them——

A. Last.

Q. Last?

A. Yes, sir.

Q. Are there any pipe lines, producing fields, market lines, transporting gas from West Virginia or compressing stations that can be allocated to the supplying of any market?

A. No, sir.

Q. I wish that you would give the reasons for that answer. First, may I ask you about operating conditions?

A. From an economic standpoint and from a practical standpoint due to the various network of pipe lines and the various direction of flow of the gas from day to day and the various wells that are operated throughout the State, in my opinion we could not allocate any pipe lines, any compressor stations or any wells to any particular market.

Q. Do I get the picture that one day the gas is flowing one direction and the next day in another direction?

A. Yes, sir.

Q. What has weather conditions and temperatures to do with the operation of the 3800 wells in which the Ohio Fuel

1503

[fol. 2520] Gas Company is interested as proprietor or customer?

A. The temperature and wind velocity is the greatest factor entering into the control of gas wells in that, as the temperature drops, the customer uses more gas, which necessitates the turning on of additional well or arranging for additional gases to be delivered to markets. The same condition exists when the temperature warms up or during the summer period, it is then necessary to shut off and reroute gases, shutting down the compressor stations, and many other changes enter into the operation of the fields from day to day and from hour to hour.

Q. What has the rock pressure of a well to do with the production?

A. The rock pressure of the wells differs; very few wells in our entire system have identically the same rock pressure and there is very few of our wells, unless they were delivering gas into a compressor station, that would have sufficient rock pressure to deliver gas to our markets.

Q. What do you have to do in protection to these wells without sufficient rock pressure?

A. We have to keep them on the compressor station at all times.

Q. Now I wish you would briefly tell the Commission the method used for discharging field gases from the various compressor stations to a master compressing station, if such thing is done?

A. In our south field—Mr. Turner, do you want me to answer as to each of the stations?

Q. Oh, yes, I think you better do that?

A. We have a station, in Sutton Township, Meigs County, known as Sutton Compressing Station. This station with all of the production turned on behind the station discharges some gas into the West Virginia line, which, in turn, is

1504

[fol. 2521] transported to Wheeler Station.

Other gases from that compressing station are discharged into what is known as our Line F. Division, which supplies Middleport, Gallipolis, Point Pleasant and river points.

The Meigs compressing station, which is located in Meigs County, picks up gases from various sources in the vicinity of the station, and discharges its gas into the 18 inch which is mixed with West Virginia gas. That sta-

tion discharges various amounts from day to day depending upon the number of wells we are operating behind the station.

Q. Did you tell me where Sutton discharged?

A. Yes, sir.

Q. Where?

A. It discharges part of the gas into the 18 inch line E. which is intermingled with West Virginia gas. The other part of the gas is discharged for river markets which are Point Pleasant, Pomeroy, Gallipolis and Middleport.

Q. Go ahead now.

A. The Lick compressing station is located in Lick Township, Jackson County.

Q. All those compressor stations are shown on the map as a part of Exhibit 23, are they not?

A. Yes, sir.

Q. Go ahead.

A. And this station d[illegible]rges its gas into the same line that transports West Vi[illegible]a gas to Wheeler compressing station. The volume of gas discharged at this station will vary from day to day according to the number of wells that are being operated and the field pressures being maintained.

The Richland compressing station gathers gases from Vinton County and small amounts from adjacent counties, compressing same to higher pressures and delivering the

1505

[fol. 2522] gas through a 12 inch to Union Furnace; thence through an 18 inch to Wheeler station.

Q. All right; the next one?

A. Creola compressing station gathers gases in the eastern part of Vinton County and adjacent counties and discharges same——

Q. Not so fast—not so fast.

A. Through the 12 inch to Union Furnace and through the 18 inch to Wheeler station.

Benton station picks up gases in Hocking County, discharging same through an 8 inch line to Sugar Grove compressing station.

Q. Is that an 8 or a 10 inch?

A. It is a mixed; part of it is 8 and part of it is 10.

Q. All right.

A. Laurel compressing station picks up other gases in Hocking County and discharges same into the Benton dis-

charge line where gases are transported to Sugar Grove station.

Q. All right; go ahead.

A. Barlow compressing station is located in Barlow Township, Washington County. This station picks up Washington and part Athens County gas, delivering same into the connecting 16 inch line where gas is transported to Sugar Grove compressing station.

Gay compressing station gathers field gases from Athens and Meigs County, compressing same to higher pressures and discharging its gases into the Connecting 16 inch line. This gas is also transported to Sugar Grove compressor station through the Connecting 16 inch line.

Q. At that point I want to ask you how Athens gets her gas; I am looking at the map; you have not a map before you, but I show you what I want to find out.

1506

[fol. 2523] A. I can tell you without using a map.

Chairman Geiger: He is a real witness. He is not referring to notes. You do not have to show him any map.

Q. All right; tell me how Athens gets her gas?

A. Athens is supplied through a six inch line off of Connecting 16 inch line.

Q. Well, how do we know whether that comes from Connecting gas, from the Grimes compressor, the Barlow compressor or the Gay compressor?

A. There is no way of knowing which gas they are getting inasmuch as the Ohio gases are discharged in with the West Virginia gases, and the gases are intermingled so that Athens will get a mixed gas.

Q. All right; you have given us Barlow and Gay down there; give us the rest of them.

A. Grimes station picks up gas from Athens County, Perry County and adjacent counties, delivering its gas into Connecting 16 inch line, and its gas is transported to Sugar Grove station.

Q. Now I notice there is a Line H-231, H-219, that goes into Grimes from the north; what gas, if any, does that carry in or out of Grimes?

A. H-175 going into Grimes is connected with H-119 going into Malta. Inasmuch as our company is competing with Hopewell Gas Company in that particular section, to

live and to recover the desired volume of gas from our wells it is necessary that we pull from both sources to compete with the Hopewell Gas Company.

Q. All right; now go ahead and give the rest of them.

A. Gore compressor station is located in Perry County, gathering its gases from Hocking County and Perry County, discharging same into the Connecting 16 inch lines

1507

[fol. 2524] and thence to Sugar Grove.

Q. All right, go ahead; has that compressor station any other connection than to the Connecting Gas Company Line? I notice H-86 here on the map.

A. H-86 is a line that can be used as a discharge from Gore compressor station, or can be used as an intake into Gore compressor station. If used as a discharge, New Lexington, Shawnee, Straitsville and other markets can be supplied from Gore compressor station.

If used as an intake these markets are supplied from gas being discharged from Wheeler compressor station, which flows through Line H and H-86 to the New Lexington markets.

Q. I notice Malta and Union Furnace marked here; what significance if any have they?

A. Union Furnace compressor station gathers casing head gas off of oil wells in Star township, Hocking County, discharging that gas to Gore compressor station. Malta compressing station was partially covered before when we referred to Grimes and Malta.

Q. All right; go right ahead. Now I want you to go on up towards Crooksville there and let us cover that part of the state.

A. Crooksville compressor station gathers gas from Perry County and this particular field is very competitive with the Hopewell. The Hopewell delivers gas to Zanesville industrial markets.

The Ohio Fuel delivers gas to Zanesville markets from this station on cold days. On the warmer days this station delivers its gases to Wheeler station through Line H, so that Line H, is a discharge line part time and a suction line the other part.

1508

[fol. 2525] Q. Now we rested last night at Zanesville and I would like to travel east towards the rising sun this

morning, and will you give me the compressor stations to the east of Zanesville?

A. Heslop Station is located in Grandview Township, Washington County; this station collects gas from Washington County, discharging part of the gas to Watertown, Waterford, Coal Run and other markets. The surplus gas over and above needed to supply these markets is discharged to Hagan Station.

Q. All right; go right ahead with Hagan.

A. Hagan station gathers gas from Belmont County, Monroe County, Noble County, discharging same to Elk

1509

[fol. 2526] station. Several small markets are served en route between Hagan and Elk station.

Q. There is a surplus though, is there?

A. Yes, sir.

Q. All right; give us Elk.

A. Elk station picks up field gases in Noble County, Monroe and Belmont Counties, discharging same to Zanesville markets and Cambridge markets. This station also discharges gas to St, Clairsville, Barnesville, Bethesda, Somerton, Old Washington, Lore City, Byesville and other markets.

Q. Any surplus gas come west?

A. Yes, sir.

Q. Where does it go?

A. The surplus gas goes to Zanesville. Surplus gas also goes to Cambridge compressor station and is discharged to Homer or the Treat Station; other surplus gases are delivered to Newcomerstown and other small cities.

Q. All right; now pick up the next compressor station.

A. Westland compressor station picks up gases in the Cambridge field and discharging same into Line O, which is intermingled with Elk, Hagan, Heslop and other gases and is discharged to Zanesville, Wheeler compressor station, Cambridge station, Newcomerstown and Treat Station.

Q. Then that gas from Heslop, Hagan, Elk, Westland, at least a part of it, goes to Wheeler station and from Wheeler station to Columbus?

A. Yes, sir, on the warmest days it would travel that route; on the colder days practically all of it would be consumed in the division known as our Cambridge-United Division.

Q. And of the gas that went to Treat or to Homer, part of that would come to Columbus?

A. Yes, sir.

Q. Did you give me the Cambridge?

A. No, sir.

1510

[fol. 2527] Q. All right.

A. Cambridge station picks up local gases in Wheeling Township, Knox County, Guernsey Township, Spencer Township and the surplus gas from Elk, Hagan, Heslop and Westland station, and discharges same to Treat compressor station. Treat compressor station in turn discharges to various markets including Columbus.

Q. Well, now, at that point I want to get the fact of whether Treat is what you call a master compressor station?

A. Yes, sir, it is.

Q. And Wheeler is a master compressor station?

A. Yes, sir.

Q. All right; now go right along north; I think we have covered everything east.

A. All right; we will start with the extreme northern part of the State.

Q. All right.

A. North Eaton Station is located in Columbia Township, Lorain County, picking gases up in the vicinity of the station and adjacent townships, discharging some gases to Berea, Parma Heights and other cities, the surplus being delivered to York compressor station.

Q. All right.

A. York compressing station gathers gases from the Medina County field, the surplus from North Eaton, the Wayne County field and Cuyahoga County field, discharging same to north markets through a 12 inch line, which markets may be considered as Norwalk, Elyria, Fremont, Berlin Heights and many other northern markets.

Q. I notice that those compressor stations are hooked up with Homer or Treat; does gas flow more than one direction from Treat north, or does it——

A. Yes, sir, it flows numerous directions from Treat.

1511

[fol. 2528] Q. Well, I perhaps asked my question very clumsily. In Line L and L-53 does gas go both north and south?

A. In Line L, the extreme north part of Line L, gas can go four different directions; the southern part of Line L gas would only go south.

Q. What I want to get is whether or not any of the North Eaton or York gas ever gets down to Treat?

A. Yes, sir, I had not finished.

Q. Well, go ahead; that is my fault.

A. Gases are discharged from York compressor station through a 12 inch line known as L-219 into Line L; these gases are delivered to Ashland station where some gas may be routed to Pavonia station and delivered to Bucyrus, Findlay, Fostoria, Shelby, Marion or many other markets; other gases being delivered into markets between York station and Treat station.

The surplus gas not consumed at the stations referred to be delivered to Treat compressor station; so that it is possible for York station to take the surplus gas from Ashland station through L-219 and use this gas line as an intake line into York station as well as a discharge line out of York station.

Q. All right; perhaps I interrupted you before you gave Avon and the rest of them?

A. Avon station during the year 1929 gathered field gases from Avon Township and adjacent townships, delivering same to Elyria, Norwalk, Fremont and other markets.

Q. Lorain?

A. Yes, sir.

Q. All right.

A. L-221 at York station can be used as both an intake

1512

[fol. 2529] and discharge line on account of the field gases feeding into this line between York compressor station and Elyria.

Q. All right.

A. Now we are ready to go to Ashland station.

Q. All right; go down to Ashland now, or do you want to hit South Salem before you get to Ashland?

A. West Salem station, a field gathering station, is connected with York, Miley and Ashland field gathering systems, and that portion of gas picked up at West Salem station is discharged through L-501 to Pavonia compressor station.

Q. All right; now give me the next one.

A. The Ashland compressor station field is connected with York, West Salem, Miley and Pavonia field gathering systems; discharged gas leaving this station may be routed to York station, Pavonia station or Treat station.

Q. All right; go ahead now.

A. Miley compressing station, a field gathering system, is connected with Ashland, West Salem and York fields. The gases leaving this station are discharged into Line L-660, which is an intake line into Pavonia.

Q. All right.

A. Perrysburg compressor station gathers gases in Ashland County, part of Richland County and a small part of Knox County. This station can discharge its gas to Brown compressor station through L-76 or can discharge its gas to Pavonia station into L-660.

Various operating conditions make it necessary for the gas to be routed different directions on different days.

Brown compressor station gathers field gas from Knox

1513

[fol. 2530] County, Ashland County and Richland County, discharging same to Line L, thence to Homer or Treat.

Q. All right; now we have covered everything over there; are there any other compressor stations?

A. There is a very small station in Monroe Township, Holmes County, known as Monroe station. This little station gathers gases, discharging part of same to the Ohio Gas Light & Coke Company for Millersburg and Kilbuck. Other gases are discharged to Miley station where same is discharged to Pavonia.

Q. Now is there any one of those fields whose gas may not—or I will put it has not, come to Columbus?

A. No, sir.

Q. Can you tell from day to day where you will get the gas that comes to Columbus?

A. No, sir; inasmuch as numerous compressing stations are pulling on the same field gathering system it would not be possible to tell from each well or each field gathering line whether the gas is coming to Columbus or going to other markets.

Q. Now let me see if I have gotten the proper understanding and if it has been communicated to the Commission.

You have these various compressor stations and various gas fields and you have three classifications of wells?

A. Yes, sir.

Chairman Geiger: That was No.—you mentioned that as No. 3, didn't you?

Mr. Turner: Yes, sir.

Chairman Geiger: You are getting——

Mr. Turner: I am just turning them around, Your Honor.

Chairman Geiger: Will you keep them in the same order;

1514

[fol. 2531] the first order was offset wells.

Mr. Turner: All right, I will give you that.

Q. Now let me see if I have gotten the proper understanding and if it has been communicated to the Commission. You have these various compressor stations and various gas fields and you have three classifications of wells; that is, the first class of wells that you call upon are those which are known as casinghead gas wells?

A. Yes, sir, the very light rock pressure wells and wet wells.

Q. And which you have to keep pumping all the time?

A. Yes, sir.

Q. The next class are the offset wells where you offset some competitor or some competitor offsets you; where you have to draw that gas or lose it to the competitor?

A. Yes, sir.

Q. And the third class is your own wells which are not in direct competition so far as——

Chairman Geiger: That is the fourth class; the third class, as I recall it, were offset wells to those from whom you were buying gas?

Mr. Turner: That is right.

Q. The third class is those that offset wells from those from whom you are purchasing gas?

A. Yes, sir.

Q. And the fourth class is your own wells which are not offset by some competitor?

A. There is still another class. The fourth class referred to was that class of wells that might be considered slightly competitive. The fifth class are those which we might consider protected wells.

Chairman Geiger: Well, that—as I recall your first ex- 1515
[fol. 2532] amination you only had four classes; now you are adding a fifth class?

The Witness: Well, I should have said five, if I only said four. You have your light casing head wells. You have offset wells to a foreign company——

Mr. Turner: Not so fast—not so fast.

The Witness: The next class is the offset wells to the companies you are purchasing gas from.

The next class of wells are those wells that might be considered slightly competitive, whether it be with a foreign company or with a company you are purchasing gas from.

The next class of wells are those wells that are absolutely protected and you do not have any competition.

By Mr. Turner:

Q. And you draw upon them in the order named?

A. Yes, sir.

Q. Mr. Calland calls my attention to the fact that maybe I did not ask sufficiently about Homer gas; Homer is a master compressor station?

A. Yes, sir.

Q. Gathers gas from some fields itself, does it?

A. Yes, sir. Treat compressor station gathers——

Q. Which shall we call it, Treat or Homer?

A. Treat.

Q. Well, it is known here on the map as Homer.

A. Well, we refer to it as both but Treat is the official name of the station. 1517

[fol. 2533] Q. Now let us see where the gas from Homer goes?

A. I started to answer that question; if Mr. Okey will read that part of it.

(Record read.)

The Witness: I would suggest that I start anew on the various intakes and discharges leaving and entering Treat compressor station.

Q. All right.

A. Treat compressor station gathers gases from Fair-

field, Knox, Licking and Coshocton Counties, which are delivered into the station through L-52.

Line L delivers gases into Treat compressor station from North Eaton, York, Ashland and Brown.

Line 0-400 delivers gas into the Treat station from Heslop, Hagan, Elk, Cambridge, Spencer, Sonora, Wheeling, Crooksville and other field gases, to Treat Station.

Line N. Coshocton 8 inch line, is used as an intake part time, delivering Coshocton County gases into Treat; other times this line is used as a discharge line from Treat.

Line D. delivers gas from Pavonia compressor station through the North 12 inch of Line B into Treat. The north 12 inch B and line D. can be used as a discharge line from Treat station to northern markets and is used as a discharge line to northern markets.

Q. Now do you want me to go ahead with the discharge lines?

1518

[fol. 2534] Q. Yes, I want you to give the discharge lines now.

A. Line B discharges gas from Treat station to Columbus, Dayton, Cincinnati, Indiana, New Albany, Johnstown, Croton, West Jefferson, London, Springfield, Piqua, Sidney, Versailles, Troy, Urbana, Beattytown and numerous other towns.

Line N delivers gas to Coshocton, Bladensburg, Warsaw, Utica and other markets when used as a discharge line.

Line M-21——

Commissioner Bricker: Didn't you get that confused with J? On your map here J runs to Coshocton.

The Witness: Yes, but leaving Treat station, Your Honor, it is Line N.

Commissioner Bricker: Oh, I see.

The Witness: Line M-21 is a six inch line which supplies Mount Vernon, Frederickstown and other small markets north of Mount Vernon.

The north 12 inch Line B out of Treat when used as a discharge line discharges gas to Delaware, Bangs, Shelby, Fostoria, Bucyrus, Findlay, Tiffin, Carey, Norwalk, Freemont, Berlin Heights, Elyria, Lorain and other markets.

The north 12 inch line B leaving Treat station is used part time as an intake line into Treat and part time as a discharge line leaving Treat.

Mr. Huffman: Where is B?

The Witness: I think it is shown as a single 18, or does it show two 12's on that map leaving Treat?

Mr. Huffman: One B comes to Columbus; there is a D going north; do you mean B?

1519

[fol. 2535] The Witness: B leaving Homer.

Mr. Huffman: What does it become after it comes out there though?

The Witness: It becomes B; we have two 12 inches leaving Treat station which swedge into one 18 inch. The north 12 inch is utilized for a different purpose than the south 12 inch.

Mr. Turner: I think some one handed you a map there; I think the Commission would be pleased to have you testify without a map.

Commissioner Bricker: We may not be pleased but we will be amazed.

Mr. Huffman: I cannot follow them when they start at one letter and become something else as soon as they get two or three miles away, and in the northern part of the State they are all designated D.

Mr. Turner: My dear boy, you have been in the public service and have something to do with the routing of highways and if you will note the highways are marked very much the same way; I have been over them.

Chairman Geiger: Gentlemen, let us proceed with the witness. He is doing very well.

By Mr. Turner:

Q. Go ahead, Mr. Phillips. You were on B; all right.

A. I think we covered B, Mr. Turner.

Q. All right, go ahead with the next one then.

A. I think we have covered all the discharge lines leaving Treat.

Q. All right.

A. Excuse me just a minute. K-30——

Q. All right.

A. Is a 16 inch line which part time is used as a discharge

1520

[fol. 2536] line out of Treat compressor station to Newark, Pleasantville, Baltimore and Basil markets; other times

Line K-30 is used as an intake line into Treat compressor station from Sugar Grove and Wheeler.

Q. Now you have covered then—let us, in the first place, distinguish between Sugar Grove and Wheeler; are they two separate stations?

A. Yes, sir, they are two separate stations.

Q. And they are master compressor stations also?

A. Yes, sir.

Q. Let us take either one you want to start with and tell us about them in the same way you have told about Treat; in the first place, which is the larger of the three?

A. Wheeler.

Q. And which is the next larger?

A. Treat.

Q. And you have introduced here a photograph of the machinery in Treat; is the machinery in Wheeler and Sugar Grove similar to that?

A. Yes, sir.

Q. All right; now go ahead with either Wheeler or Sugar Grove as you desire?

A. Sugar Grove compressor station discharges all of its gases to Wheeler compressor station where various quantities of West Virginia and Ohio gases are intermingled and discharged into various market transporting lines. The proportion of West Virginia and Ohio gas changes from hour to hour and from day to day and the volume delivered from Wheeler compressor station into the various market lines changes from hour to hour and from day to day, in that several lines leaving Wheeler compressor station are connected with lines leaving Treat compressor station.

1521

[fol. 2537] Line A, an 18 inch line, delivers gas to Mount Sterling, South Charleston, Xenia, Cedarville, Dayton, Indiana, Cincinnati, Centerville, Circleville, Amenda and numerous other markets.

Line Z—(as in Zane)—a 10 inch line, supplies Mount——

Q. Is that a 10 inch line? I have it marked here an 18 inch line.

A. Z—it should be a 10; if it is 18 it is an error.

Q. It is an error if it is marked 18 on the map?

A. Yes, sir, it is a 10.

Q. All right.

Chairman Geiger: I would rather trust this witness than a map if he did not make the map.

Mr. Turner: All the men here say the map is wrong.

Mr. Butler: Which one are you talking about?

Mr. Turner: Z—that leaves Wheeler and goes toward Mount Sterling.

Q. All right; go ahead now.

A. Line Z transports gas from Wheeler compressor station to Mount Sterling, South Charleston, Springfield, Tippecanoe City, Tremont City, Urbana, Piqua, Sidney, New Knoxville, Versailles, Troy, Bradford, Phillipsburg, Dayton, St. Marys, Anderson; that is, we sell to The Central Indiana Gas Company, which, in turn, supplies Anderson, Fairmount, Muncie and other Indiana cities.

Line Z also supplies London, West Jefferson, and may deliver gas back through Line Z-50 from South Charleston to Columbus. This line has been used for this purpose many times.

Line H is an 8 inch line between Zanesville and other

1522

[fol. 2538] eastern markets and Wheeler station. This line is used as a discharge line out of Wheeler station to supply New Lexington, Buckingham, Drakes, Fultonham, East Fultonham and Zanesville and eastern markets during colder weather.

Chairman Geiger: Do you mean by "eastern markets"—how far east?

The Witness: It may go to Cambridge or Barnesville providing there is not sufficient production.

Chairman Geiger: You do not mean by "eastern markets" Pittsburgh and New York City?

The Witness: Oh, no, sir; when I refer to eastern markets I mean on our map.

Mr. Turner: In Ohio.

Chairman Geiger: All right.

By Mr. Turner:

Q. You said it was a supply out; is it an intake in also? Line H during the winter period at night is used as an intake line into Wheeler in that the industrial use of gas in the Zanesville district is curtailed to such an extent that there is a surplus production produced in Zanesville and

Cambridge districts which in turn is transported to Wheeler station through Line H.

Line H is used as both an intake and discharge line, and is very much governed by the temperature and weather conditions.

Line K-30 is connected between Wheeler compressor station and Sugar Grove compressor station, and when used as a discharge line out of Wheeler transports gas to Newark, Pleasantville, Baltimore and northern Ohio markets. When used as an intake this line delivers gas from Treat

1523

[fol. 2539] compressor station to Wheeler and is discharged into other discharge lines leaving Wheeler station.

Line B-50 is a 16 inch line which transports gas to Carroll, Pickerington, Reynoldsburg and ties into the Treat discharge 18 inch at a point north of Columbus known as Linden.

Gases leaving Wheeler station through Line B-50 may reach Columbus, West Jefferson, London, Springfield, South Charleston, Xenia, Straitsville, Cincinnati, Muncie, Troy, Piqua, Sidney or various other markets.

Chairman Geiger: Now, Mr. Turner, may I be pardoned—but you have some lines that run out into Indiana, discharging lines to Indiana consumers?

The Witness: Yes, sir.

Chairman Geiger: Do those lines bring gas back again from Indiana fields?

The Witness: No, sir; they do not bring gas back from Indiana but they do bring gas back from a point known as our Logan-Howell station where the two 18 inches, Z-50 and Line A, are tied together.

Chairman Geiger: But it is still Ohio or West Virginia gas?

The Witness: Yes, sir.

Chairman Geiger: It is not Indiana gas?

The Witness: No, sir.

Chairman Geiger: All right.

By Mr. Turner:

Q. Proceed with B-50 now.

A. B-25 delivers gas to industrial plants in the vicinity of Lancaster; delivers gas to the Lancaster City Gas Com-

pany; delivers gas to Groveport, Canal Winchester, Hook-
1524
[fol. 2540] ers, and to many industrial plants on Marion Road adjacent to Columbus, and delivers gas to The Columbus Gas & Fuel Company and The Federal Gas & Fuel Company.

Q. Well, now, that is the first time you have mentioned either The Columbus Gas & Fuel or the Federal Gas & Fuel; does B-50 deliver any gas to the Columbus or the Federal Gas & Fuel?

A. Yes, sir.

Q. The Columbus I am particularly interested in.

A. Yes, sir.

Q. All right.

A. B-50 delivers various quantities of gas from day to day that may be used in Columbus. I do not believe there are any two days that the identical same volume of gas would be delivered through Line B-50, B-25 Line B or any of our lines reaching Columbus.

Lines T and T-50 are 10 inch lines which supply Ashley, Waldo, Prospect, Marysville, Van Buren, North Baltimore and Toledo. These two 10 inch lines are tied together with Line B, Treat station discharge line, at a point near New Albany.

Gases are routed through Line T and T-50 and may reach Columbus through Line B, Treat station discharge line.

Q. That is New Albany in Franklin County?

A. Yes, sir. It is also possible to route gas from Pavonia compressor station which may be discharged through Line D-100 to a point near Lime City back through Lines T and T-20 to Line B and thence to Columbus or western markets.

Line C is an 8 inch line leaving Sugar Grove compressor station which supplies Hallsville, Kingston, Adelphi and Chillicothe.

Do you see any more lines on that map?

1531
[fol. 2540a] By Mr. Turner:

Q. Mr. Phillips, would it be possible for you to divide the property of The Ohio Fuel Gas Company and allocate part of its facilities to any market in the State of Ohio?

A. No, sir. Do you want me to further qualify that?

Q. Yes, go ahead and amplify it.

A. I do not know of any compressor stations, wells, field gathering lines or transmission lines that could be allocated or any part thereof to the serving of any particular market on account of the flexibility in operation, the economic operation necessary and the routing of the gas and the flowing of the gas in various directions from day to day and from hour to hour.

Q. Are there any safety factors in operating pipe lines and compressor stations, and if so, tell the Commission what they are.

Chairman Geiger: Are you leaving that one point right there.

Mr. Turner: No, I was simply amplifying it but I can make a memorandum here; ask your question.

1532

[fol. 2541] Chairman Geiger: I do not want to cover too broad a field but let us think of this here; assuming that there is a great system of gathering gas, either by purchase or drilling wells or any other method that gathers together a certain quantity of gas within the State of Ohio, with the intake or what may be brought in from West Virginia, and that gas is distributed for consumption in the State of Ohio, would it be fair to find the total value of all the appliances required to gather the entire sum of gas together and then allocate it to the different communities in proportion to the number of cubic feet burned in each community?

The Witness: I would not think it would be practical. I feel that if I attempted to make such an allocation and you attempted to make such an allocation, that you and I would differ in principle; if Mr. Butler would attempt to make an allocation he would differ in principle, and if I was to make an allocation today and make another allocation in two weeks, I would have to consider different factors from day to day.

Mr. Turner: I do not know whether you got the question; you better have that question read.

Chairman Geiger: Oh, no—oh, whether he got it?

Mr. Turner: Yes, whether he got the question. Read the question, please.

Chairman Geiger: It may be involved——

Mr. Turner: Oh, no, it is all right, but he was thinking of one thing and you of another.

(Record read.)

Mr. Turner: That is allocation by volume he is asking about now.

1533

[fol. 2542] The Witness: I do not think it would be possible to allocate by volume on account of the variation of the cost of drilling gas wells, field line connections, the variation in the cost from West Virginia, the variation in the miles of haulage, the variation in the leakage, the variation in the compressing costs, the variation in supplementing exhausted wells or declining wells with new wells; the difference in the cost of the drilling; the difference in the cost of the transportation and the miles necessary to supply markets; and on account of the difference existing in pressures from day to day; the direction of the flow would make it impossible on account of the flow of the gas being one way today and another way tomorrow. Economic operations make it possible to route gases different directions from hour to hour and from day to day; and the many cost factors that enter into it; I do not see how it would be possible to allocate on a volume basis.

Chairman Geiger: Not even if we would broaden our view and consider the producing machinery concerning which you have testified as a unit and the amount of gas it produces as a unit and then distribute it to the various consuming communities and allocate it according to the amount consumed in those communities, you don't think you could arrive at any proper allocation?

The Witness: No, sir, I do not feel that I could intelligently, and if I did I don't think I would follow the same process in another two weeks that I followed today, and I don't think anybody that might attempt to make such an allocation could do it intelligently and in fairness to the company and the public.

1534

[fol. 2543] Chairman Geiger: All right.

By Mr. Turner:

Q. Judge Geiger has been asking about the allocation by volume and not the allocation of the physical properties

of the company; you understood that, did you?

A. Yes, sir.

Q. Now what safety factors are there in operating pipe lines and compressor stations that would have any effect upon the division of the physical property?

A. In the operation of all pipe lines certain safety factors have to be considered.

Q. Tell the Commission——

A. Each line has to be known as to the maximum pressure that can be carried on that particular line at both the initial and terminal points. All gas compressors are designed to operate at certain maximum discharge pressures and you cannot operate a gas compressor continuously at the maximum discharge pressure with safety.

Transporting lines have to be operated with a certain safety factor because when you are operating them at the highest pressure is when gas is most needed; so that in the operation of wells which have to be governed by rock pressure and other conditions, in the operation of field gathering systems, pressures have to be considered so that no pipe lines are blown up. Compressor stations have to be operated to keep within the minimum range of compression and not cause an explosion by overloading a compressor.

Transporting lines have to be operated under certain safety conditions because it would be very costly to the gas company to have a large market go out of gas on account of a master pipe line blowing up.

1535

[fol. 2543a] Q. By that I understand that you have various routes for getting gas into Columbus?

A. Yes, sir.

Q. You do not rely upon any one of them?

A. No, sir.

Q. And you use them all?

A. Yes, sir; we have numerous routes of getting gas into Columbus, and if any one or any two particular pipe lines would be allocated to Columbus it would not be possible to give continuous uninterrupted service in Columbus because there is no pipe line or no compressor station that does not break down or blow out occasionally and the network of pipe lines of The Ohio Fuel Gas Company makes

it possible, if you lose one master artery, to supply the city through other arteries.

Q. Could the City of Columbus be supplied through the 18 inch line E and E-60 from West Virginia?

A. No, sir.

Q. Why?

A. The carrying capacity of the 18 inch Line E working at maximum pressure would be approximately 45 million to 50 million per 24 hours; the consumption of gas is not uniform over the 24 hour period; therefore, if Columbus would consume at the rate of 50 million in the 24 hour period, during the peak hours existing in the day time the rate of consumption would be 75 million per day.

Q. Now what changes do you have to make by reason of abandoning exhausted wells or changing from wells that may have some local difficulty for a little while?

A. Wells gradually become exhausted from the time they are drilled in and new wells may be drilled in to supplement a completely exhausted well or a partially exhausted well. The cost of drilling the new well may differ con-

1536

[fol. 2544] siderably from the cost of the old well; it may necessitate laying a longer field line to connect it up to the field gathering system, and many other factors in the operation and cost of drilling gas wells enter into this condition.

To further qualify that I would like to add that gas may be produced from the Clinton sand in one field, from the Berea sand in another field, from the Cow Run sand in another field, from the Salt sand in another field, or from the limestone in another field.

Q. Is this statement correct; Columbus may receive 90 per cent of gas from Wheeler station today, whereas tomorrow only 10 per cent may be delivered?

A. Yes, sir.

Q. Is this statement correct; numerous other cities are served en route to Columbus and practically every major transmission line in our entire system does from time to time have a bearing on the delivery of gas to Columbus?

A. Yes, sir.

Q. This is also true of all compressor stations, field gathering lines and gas wells, is it?

A. Yes, sir.

Chairman Geiger: Right at that point, would you be able to give us an intelligent estimate of about how much of the Columbus supply flows to Columbus from the south and east of Columbus, eliminating that portion of your equipment that may lead north of Columbus or northeast of Columbus for gas gathering purposes? Is it generally true that the Columbus supply comes from the southeast and east rather than from the north and other points of the compass?

The Witness: That condition will change from day to day and from hour to hour. In the year of——

1537

[fol. 2545] Chairman Geiger: I understand that as to your pipe lines, but isn't it, as shown by this map, isn't it rather true that Columbus' supply comes more largely from the southeastern part of the State than from any other portion of the state?

The Witness: That may exist in one particular day, Your Honor, but the following day it may be reversed and Columbus in most part be supplied with northern and eastern Ohio gas.

By Mr. Turner:

Q. Let me ask a question at that point; your Exhibit No. 23 shows the average for a year and not the reflection of a day?

A. Yes, sir.

Q. And the average for the year 1929 and no other year; that is correct, isn't it?

A. Yes, sir.

Q. And the item there—the figures here, additional gas routed to Columbus to supply Columbus, Cincinnati and Dayton markets, appearing on 23-A as 5,900,000,000 all comes from Treat station, does it not?

A. Yes, sir.

Q. That is the average during the year?

A. Yes, sir.

Chairman Geiger: Let me ask you this then; all these compressing stations which you have enumerated are for the purpose, as we understand, or controlling the flow of gas gathered from different sources.

The Witness: Yes, sir.

Chairman Geiger: Now is there any measuring done at the compressing station so that your record there will show how many million cubic feet you have gotten from one pipe intake line and how much from another, so that you

1538

[fol. 2546] can say "We have this day burned in Columbus so many million feet gathered from the enumerated gathering lines?"

The Witness: I might go back a little further on that, Your Honor. At the minor compressing stations we measure by compressor displacement; that is, we take the cubical content of the inside of the piston times the revolutions the compressor is making per minute; whether it is a single acting, single tandem, single acting twin tandem or double acting twin tandem, the total cubical content of the compressor cylinder running at its rated speed or actual speed times the pressure multiple necessary to take care of the excess pressure over and above the pressure base times the mechanical efficiency of the engine will give you the volume of gas compressed by that engine in 24 hours, or any part thereof.

Chairman Geiger: That is done each day and the result set down?

The Witness: Yes, sir, I receive a postal card from each station each day.

Chairman Geiger: And you know how much you are required to pay each person from whom you buy gas and you know how much gas has come from your own wells each day, do you not?

The Witness: That is, it is not recorded each day although the purchase contracts are usually measured by what is known as a seven day clock.

Chairman Geiger: Oh, well, never mind whether it is a seven day or one day, but you do know in order to pay for that gas you purchase?

The Witness: Yes, sir.

Chairman Geiger: And you do know how much comes out

1539

[fol. 2547] of your own wells?

The Witness: Yes, sir.

Chairman Geiger: And you do know where it goes to?

The Witness: I know to which of the master compressor stations it goes to from the minor stations.

Chairman Geiger: You would know at the gateway of each city where it goes to if you assemble those measurements at the gateway; you can say "We have certain stations and towns that burned gas on this day", and you furnished that much gas and that makes up the total of what you sold?

The Witness: Yes, sir.

Chairman Geiger: And your other records that you have would show the total of the gas you have accumulated, whether by purchase or by digging from your own wells?

The Witness: Yes, sir.

Chairman Geiger: Well, that would be a way to work it out then?

Mr. Turner: Let's see if there would—pardon me if I am claiming the right to re-examine on that before you make up your mind absolutely.

Chairman Geiger: Well, I don't know how we would work it out; let me ask this; as a basis, do you have the figures either by day or weekly report of the amount of gas that passes through every station; you are able to tell how much you bought and how much you got from your own wells; is that correct?

The Witness: If you take leakage factors——

Chairman Geiger: Well, with the allowance for leakage and all that——

1540

[fol. 2548] The Witness: We take an intake measurement at the major compressor stations by an orifice meter and at the minor compressor stations——

Chairman Geiger: No difference how you do it—can you do it?

The Witness: Yes, sir, the intake——

Chairman Geiger: All right. Now you have your accumulation of gas, and then on the other hand have you figures available, however, you arrive at them, of telling what you did with the gas that you accumulate, where you distribute it?

The Witness: No, sir, we have no measurements on the discharge lines.

Chairman Geiger: But you have a measurement at each gateway where you have sold it at the gateway?

The Witness: I could not say that you did have a measurement of each town proper; you know what your sales are in each town, but——

Chairman Geiger: Well, all right.

Commissioner Bricker: That is where it is sold direct by The Ohio Fuel Gas Company?

The Witness: Yes, sir.

Commissioner Bricker: And you do know where it is sold to another distributing company, there is a record kept of that?

The Witness: Yes, sir.

Commissioner Bricker: If such an allocation as you have mentioned were possible it would give no advantage to geographical location at all or proximity to the field or source of supply, would it?

1541

[fol. 2549] The Witness: Will you repeat that question, please?

(Question read.)

The Witness: No, sir.

By Mr. Turner:

Q. Can you tell where the gas that is burned in Columbus came from other than by estimating the proportionate volume of it?

A. No, sir.

Q. In other words, as I have understood your testimony, some of the gas in Columbus may come from Heslop, Hagan or Elk compressing stations?

A. Yes, sir.

Q. Can you tell except by simply taking the percentage of what goes out of Wheeler how much of that gas was used in Columbus?

A. No, sir.

Chairman Geiger: Certainly not; it is similar to this—trying to make a simple illustration; here is an elevator that collects wheat from a dozen different farmers; they keep a record of who they buy their wheat from and they put it into a bin or elevator and sell it out to somebody else; now they cannot tell who got the wheat from Farmer A or who got the wheat from Montana or Kansas, but they do know that they gather together in that elevator a certain quantity of wheat for which they had to pay and they do know they sold out a certain quantity of it for which they

got money. Now isn't it very much of that kind of a situation?

The Witness: There are so many factors entering into this problem, Your Honor, such as we have a great many towns being supplied from field sources before the gas reached the compressor station, and——

Chairman Geiger: Well, you know that; you have measurements on that, haven't you?

1542

[fol. 2550] The Witness: Yes.

Chairman Geiger: All right.

By Mr. Turner:

Q. How many towns does The Ohio Fuel Gas Company supply in Ohio?

A. About 380.

Q. Do you recall the deliveries of The Ohio Fuel Gas Company in 1929?

A. That is the grand total?

Q. Yes.

A. I think it was approximately 58 billion.

Chairman Geiger: Let me get this straight; you refer to 58 billion; do you mean 58 billion cubic feet or 58 billion thousand cubic feet?

The Witness: 58 billion cubic feet.

By Mr. Turner:

Q. Of which Columbus used approximately how much?

A. The Columbus Gas & Fuel Company I think used 6,993,000,000.

Q. Approximately ten per cent?

A. Yes, sir.

Chairman Geiger: Assuming that is the ratio that Columbus used approximately ten per cent of all gas gathered in this field, then would it be possible to allocate to Columbus as the property used and useful in furnishing Columbus ten per cent of the value of all property that is used to produce that full volume?

The Witness: No, I would not say you could do that in fairness.

Chairman Geiger: All right, well, could you think of any fairer way?

The Witness: No, sir, I could not.

Chairman Geiger: Isn't that as fair a way as you can find if you have to do it?

The Witness: I feel, that if I attempted to do that,

1543

[fol. 2551] Your Honor, that there would be a great many factors to be considered which would make it impossible to allocate on the volume basis.

Mr. Turner: I might say——

Chairman Geiger: Just one more word—well, can you think of any fairer way?

The Witness: I cannot think of any way that you can allocate physical properties on a volume basis to any particular market.

Chairman Geiger: All right.

Mr. Turner: Now, if the Commission please, I can say that we will offer some evidence through another witness. Now I have from this witness his theories on both the physical and the volume basis, and he is "agin" them both.

Chairman Geiger: Well, can he suggest any way? Then is this the thing; is it just an impossible thing to do or is there a way to do it one way—a better way than the other, or can it be done at all?

Mr. Turner: Well, we are going to present you some figures and would like to do it before noon on that very thing, assuming that Mr. Butler is not going to cross-examine.

Mr. Butler: My watch says it is after twelve o'clock now.

Mr. Turner: That is all.

Chairman Geiger: He will be here all the time?

Mr. Turner: Oh, yes, and I would like to have him cross-examine Mr. Phillips when we resume.

Mr. Butler: I cannot cross-examine him. I must have out this testimony.

1544

[fol. 2552] Mr. Turner: Oh, Pshaw.

Mr. Butler: Oh, I don't care what you say about it.

Mr. Turner: I have tried lots of cases where men tried to examine or cross-examine on more technical things than that.

Mr. Butler: I do want one or two little questions here that will be an aid to me.

Cross-examination.

By Mr. Butler:

Q. Where do you keep the records of the company with respect to these matters?

A. With respect to what matters?

Q. The matters about which you have been testifying?

A. The pressure control matters are kept in the pressure department.

Q. Where is that?

A. That is in Room 305 at 99 North Front Street, Columbus, Ohio.

Q. Do you have there available, those for 1928 and 1929?

A. We have them filed in our vaults.

Q. Well, are they available for examination?

A. Yes, sir. The treasury department records, such as the moneys received and gas sales, are recorded in the treasury department on the fourth floor.

The maps showing location of the gas wells, the leaseholds and various items relative to drilling activities are maintained on the second floor.

Q. Do I understand now that you have the measurement of gas that comes into the compressor stations?

A. Yes, sir.

1545

[fol. 2553] Q. But do not have the amount of gas that goes out?

A. Yes, sir.

Q. You have all of that?

A. No, sir, I do not have the gas discharged.

Q. Haven't you ever done that?

A. No, sir, it is impossible to measure by orifice meter or any other measuring unit on the discharge side of the compressor on account of the pulsation and the eddy caused by the pulsation of the pistons.

Chairman Geiger: If you measure the gas when it comes in, it all goes out, doesn't it?

The Witness: It all goes out except that part that is used as fuel.

Chairman Geiger: You have the total amount of gas in; you do not have to measure both ends; you measure when it comes in?

The Witness: You do not know what volume is delivered to each respective line.

By Mr. Butler:

Q. I did not catch that?

A. You have no measurement of the exact volume leaving the compressor station that is delivered in each respective line.

Q. Well, how did you ever determine that then? What records have you that will show what went north from Treat, what went south from Treat, what went southwest from Treat; what records have you that show that?

A. A fairly good estimate can be made by following Weymouth's pipe line formula which takes into consideration the differential pressure between initial and terminal points, the markets served between various initial and terminal points, the fractional pressure drop and the——

1546

[fol. 2554] Mr. Turner: Not so fast—not so fast.

The Witness: The temperature and other factors which are necessary to be considered in arriving at a fairly accurate figure of the volume of gas transported by observing the initial and discharge pressures.

By Mr. Butler:

Q. Good heavens, didn't you name them all? You say "other factors necessary"; what other factors are necessary?

A. Well, I had to solve Weymouth's formula and it was six pages of equations bringing it up from—the fundamental equation—the quantity equals area times velocity.

Q. Is Weymouth the gentlemen that was here?

A. Yes, sir.

Q. He used to be president of the Iroquois Gas Company of Buffalo?

A. Yes, sir.

Q. I always thought he was a nice gentleman.

A. He is.

Q. But if he gets up such a formula as that——

A. Well, he is a mathematician.

Chairman Geiger: Have you anything further? Do you wish to put in some more figures?

Mr. Turner: Yes, sir.

By Mr. Butler:

Q. I wonder if that is Weymouth's formula or did he get it from the famous Von Gemmingen who was a witness in 1925; have you traced it back?

A. Why, of all the books or government bulletins that I have ever received Mr. Weymouth is given the credit of having compiled that formula, which is considered by engineering authorities the most accurate of any pipe line

1547

[fol. 2555] capacity formula.

Q. Well, out of all of that, it seems to me you mean to tell me that it is just impossible on any day to tell just how much gas went in the various directions from any particular master compressor?

A. I could tell possibly in some instances how much gas left some of the stations, but on account of the interconnections with pipe lines and various compressor conditions it would be hard to tell the exact volume or the proportion of each volume leaving the master stations that is delivered to certain markets.

Q. Ah, but I did not ask you that, Mr. Phillips; I asked you whether you could tell us the amounts on any particular day that left the compressor station?

A. Not the master stations, no, sir.

Q. Well, then I was not asking you about the amounts delivered; just two questions more and I will quit. When you were cross-examined I asked you this question:

"Question: Mr. Phillips, do you bring down from the north any gas to Wheeler or Sugar Grove or Grimes?

"Answer: Gas is distributed or marketed by the shortest haul and we would not have occasion to bring gas from the northern part of the State to the southern part of the State."

A. We would have an occasion to bring gas from Wheeler through—I mean from Treat through K-30 to Wheeler; we would have an occasion to bring gas from northern Ohio and eastern Ohio to Columbus and Western Ohio markets and the network of pipelines makes it possible to send it the most economical way.

Q. Well, then you did not answer correctly before, did you?

A. I did not understand your question in that manner.

1548

[fol. 2556] Q. Well, then the next question—

"Question: So you never do that?"

"Answer: No, sir, unless something out of the ordinary requires it; something of that nature."

A. Well, that is true, something out of the ordinary.

Q. Something out of the ordinary?

A. Yes, sir.

1549

[fol. 2557] And also—

L. A. SEYFFERT, recalled on behalf of The Columbus Gas & Fuel Company, having been heretofore duly sworn, testified as follows:

Examined by Mr. Turner:

Q. Have you made an educated guess on any kind of an allocation?

A. I have.

Q. Of the gas of The Ohio Fuel Gas Company?

A. Yes, sir.

Q. All right; I hand you Exhibit 69 and ask you if that is such an estimated allocation?

A. It is.

Mr. Turner: We offer Company Exhibit No. 69 in evidence.

Commissioner Bricker: It may be admitted if there is no opposition.

And thereupon the document last above referred to is admitted in evidence on behalf of The Columbus Gas & Fuel Company and is herewith submitted and marked Company Exhibit No. 69.

Chairman Geiger: Now are you giving that without further examination for his study between now and the next convening time?

Mr. Turner: Yes, and I will say it is an allocation based upon volume and based upon the hypothesis that you put to the witness Phillips, Your Honor, as to whether or not

you could not allocate by volume; that was the substance of your question and we have tried to do it.

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[fol. 2558] Mr. Butler: Did you take out the pipe line to Indiana?

Mr. Turner: You will have to ask the witness that.

Cross-examination.

By Mr. Butler:

Q. Did you take out any of the physical property, any of the pipe lines, in making this allocation?

A. No, sir, this is done on a volume basis.

Commissioner Bricker: Of all the property in the State?

The Witness: Yes, sir.

By Mr. Butler:

Q. Including the one up to Toledo?

A. Yes, sir, taking the entire volume and the entire expense.

[fol. 2559] Mr. Seyffert testified on direct examination:

1553

[fol. 2560] Q. I wish you would state what the allocation as worked out by volume shows the net cost of service to be?

A. The net cost of service at the city's gates is shown to be 61.61 cents per M C. F.

Q. I wish you would just tell the Commission briefly how you arrived at this exhibit?

A. We ascertained from my Exhibit 44 the total gas delivered at the city gates by the Ohio Fuel Gas Company, which amounted to 53,943,794,000 cubic feet, and we also ascertained the gas delivered to the City of Columbus, that is inside the city, of 6,255,075,000 cubic feet.

Q. That is right at the bottom of the page?

A. Yes, sir. The percentage of that delivered in Columbus as compared to the total delivery is 11.59 percent.

Now taking that percentage of all of the total cost of service, as shown in the first column, taking that percentage of each item, gives us the figures in the column to the right, or next to the last column to the right; and dividing that result by the M cubic feet delivered in the City of

Columbus gives us the cost for each of the items thus allocated.

Q. You have taken all of the figures of the Ohio Fuel Gas Company's cost of service and their taxes and apportioned them?

A. Yes, sir, those are all shown in my Exhibit 44, and a

1554

[fol. 2561] summary of them on page 3.

Q. Now Mr. Seyffert——

Mr. Turner: I am passing, if the Commission please, to another subject now.

Commissioner Bricker: Do I follow this correctly; you would arrive at the same figure in all other city gates following this procedure, wouldn't you?

The Witness: Yes, sir.

Commissioner Bricker: This is just the average for the State?

The Witness: Yes, sir, that is what it amounts to.

By Mr. Turner:

Q. Do you know of any way in which the property of The Ohio Fuel Gas Company could be separated or segregated or allocated to any particular city in the State of Ohio?

A. I do not.

[fol. 2562] Mr. W. J. Hightower testified on cross-examination as follows:

1703

[fol. 2563] Q. Judge Ritz the other day in addressing the Commission spoke of the method of allocation that had been fixed down there; I assume you are familiar with that; what is that method of allocation?

A. There are different methods for different things; can't you be more specific, Mr. Butler?

Q. Well, I would be glad to read what Judge Ritz said; when I follow him I think I have progressed pretty well. Here is what Judge Ritz said, on page 1633 of his testimony—or his statement, rather; not of his testimony, but of the testimony: "Now, the other proposition, I know what Your Honor is getting at. That is the transmission lines. When it came down to the transmission lines, that would not have been fair to the West Virginia Cities, so they

devised the way in our former rate case to allocate that. For instance, the gas that is coming to Ohio comes further than the gas that is delivered to Charleston. Charleston is right at the gas field, the largest one in the Appalachian Region. So they considered the element of mileage, the mileage that the gas was transported when they come to allocate the value of the pipe lines."

Now what does that mean to you? Is that what you have in mind?

A. Yes, that is all right. That just only applies to the transmission system. That is the reason I asked you to be more specific; they considered—we considered the miles the gas was transported and the amount transported and made the allocation.

Q. Well, suppose you have two cities; the whole pipe line is 200 miles; one of the cities is 100 miles away and the other is 200 miles away; they each use the same amount of gas; now what sort of a factor do you work out there for

1704

[fol. 2564] appraisement?

A. By way of illustration, Mr. Butler, we took the miles times the M C. F. transported and weighted the result. Now is that clear to you?

Q. My pride forbids me saying no. Take my illustration, where each city uses the same amount of gas on the same pipe line, one is 100 miles and the other 200 miles; what results then?

A. I have to know the amount transported for each place.

Q. The same amount for each; that is what I said.

A. Well, that would be one-third to one and two-thirds to the other.

Q. That is the method in respect to transmission that has been adopted in West Virginia?

A. Yes, sir.

Q. And that is the method that you used?

A. Yes.

Q. And that is the method you approve?

A. Yes, sir.

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[fol. 2565] FRANK W. PHILLIPS testified on cross-examination as follows:

Q. When you were here before I asked you and the company to produce a map showing the Logan Gas Company properties and lines as they existed prior to its purchase

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[fol. 2566] by the Ohio Fuel Gas, and you were kind enough to produce such a map, entitled, "The Logan Gas Company, Columbus, Natural Gas Properties as of June 1, 1929." I want to make an exhibit out of that. Do we have enough of them?

And thereupon the paper writing above referred to was marked for the purposes of identification as company's Exhibit No. 23-C.

Q. This map 23-C does not show the gathering points for wells?

A. No, sir, it does not. It would be practically impossible, Mr. Butler, to have all of the field gathering lines on a map of that size. The main arteries, however, are shown on that map.

Q. Well, on the original 23, which is a little larger, it is true, you showed the whole system?

A. No, sir, only the arteries and the master lines coming

1772

[fol. 2567] into the compressor stations.

Q. You showed all of the compressor stations?

A. Yes, sir.

Q. You do not show any compressor stations on 23-C?

A. You only asked for a map of the transmission lines.

Q. I am not so sure about that. I suppose by this time I ought to be very careful in asking for everything.

A. However, I could tell you where the stations are on that map, Mr. Butler.

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[fol. 2568] FRANK W. PHILLIPS further testified on cross-examination:

Q. We will come to that presently. I do not doubt your willingness, Mr. Phillips, to help me all you can in that, and eventually I may ask you to put down the locations on that map, superimpose it, if possible. As I look at this 23-C, there are two things that attract my attention. One is a line starting at Sugar Grove and ending out in two counties of Indiana?

A. Yes, sir.

Q. Do you know the evtent of that line in mileage from Sugar Grove?

A. It is about 85 miles from Sugar Grove to Dayton, and it is about 60 from Dayton to Muncie.

Q. About 145 miles?

A. Yes, sir.

Q. What relation had that line to the gas supply furnished to Columbus, Ohio, prior to the middle of 1929, when The Ohio Fuel Gas Company took over the Logan Company?

A. That line was tied together with the Ohio Fuel Line at the Logan Howell Station, located near Cedarville. Gases were discharged through that line to the Logan Howell Station, crossed over into the Z-50, the other 18 inch, and the gas floated back to Columbus through that 18 inch. The fact of the matter is at night we would pack that line and

1773

[fol. 2569] then the storage would be more or less utilized during the daytime, although the storage in that line which went to the Logan-Howell and west to Muncie has been changed, that is, the physical property has been changed, in that the map as shown there is now connected so that the 18 inch that is shown there going to Indiana now goes to Centerville. The crossover, however, the old Logan 16 and 18 inch going west, is now a part of the Z-50 line which comes from Homer's Station and Wheeler's Station.

Q. Mr. Phillips, I was talking about the situation prior to the time that you took over the Logan, not what has been done since.

A. These lines have been connected for several years, Mr. Butler, and an orifice meter was there for the exchange of gases and measurements, so that it was possible to utilize the line clear to Muncie, Indiana, as storage, which might be fed back into Columbus. It acted as a reservoir.

Q. Do you mean seriously to say to this Commission that this old Logan line that started at Sugar Grove and went into Indiana was used and useful for the supply to Columbus, that line between 100 and 200 miles in length, because you could pack the whole of it with gas at night and get the results of that in Columbus?

A. Is that the end of your question, Mr. Butler?

Q. That is for the moment, yes.

A. We do pack that line and we do route gas to the Logan Howell Station, and it does come back to Columbus.

Q. How did it happen that on this January 23rd, 1930, which you attempted to depict on your original map, the

1774

[fol. 2570] Z-50, shows all gas going not to Columbus but away from Columbus?

A. That map is made for one particular day, Mr. Butler. Each day in the year the operating conditions are changed.

Q. Yes, I have heard you say that.

A. There are no outlets, that is, no measurements on the outlets of the compressor stations. That map is my best judgment as to the way that gas went.

Q. And made before you realized to what it was leading you, wasn't it.

A. I wouldn't say that.

Q. Well, is that map still your best judgment?

A. On that particular day.

Q. Of the situations on that day?

A. On that particular day, yes, sir.

Q. Now, what kind of a day was that?

A. It was a cold day.

Q. Somewhat approximating a peak demand?

A. Yes, sir.

Q. Well, how did the gas go on that Z-50 between Columbus and the region down in there west of Dayton?

A. There was gas crossed over at the Logan Howell on that particular day, Mr. Butler. At midnight on that night we were packed up to our maximum safe working pressure throughout our system. By the end of the twenty-four hour interval a great part of that storage had worked out.

Q. Well now, Mr. Phillips, you made this map and I did not. You put your arrow on that map over Z-50 away down southwest of Columbus where you have some of those connections?

A. Yes, sir.

Q. Now, did you mean that or didn't you mean it? Did it reflect your best judgment or didn't it reflect it?

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[fol. 2571] A. I probably should have put an arrow both directions, Mr. Butler.

Q. Yes, everything should be in two directions now. Why didn't you think of that when you made it?

A. The question of storage is something that is very hard to explain, Mr. Butler, and unless one is familiar with operating conditions, it is rather difficult to impart to somebody that is not familiar with it as to the travel of the gas.

Q. But, Mr. Phillips, you made this or it was made under your direction?

A. Yes, sir.

Q. We had no knowledge. You presented it here?

A. Yes, sir.

Q. And you said it reflected your best judgment?

A. Yes, sir.

Q. Now, if that were not true, why did you allow this map to go in?

A. Mr. Butler, you could send 15 million west of Columbus and still feed gas back from the west to the east in an open pipe line.

Q. What do those arrows mean and what do you say that those arrows meant? What was your original explanation of those arrows?

A. I used my best judgment as to the volume of gas that left through the various transmission lines.

Q. In that direction?

A. In that direction, yes, sir, but we had no orifice measurement or any other kind of measurement.

Q. What are you trying to tell us now, that you did not know what you were talking about?

A. Yes, sir—I am not saying I did not know what I am talking about. I know what I am talking about now.

Q. But did you know what you were talking about then?

1776

[fol. 2572] A. I think I did.

Q. Now the truth is, Mr. Phillips, that after you made this map and showed the direction of the flow of gases, you just tried to devise an explanation that would have the gas going in every possible direction?

A. That is not true, Mr. Butler.

Q. Why didn't you frankly then explain that fully to us when you presented this map?

A. I think that I have testified to the effect that the gas does flow in various directions, and the change of the direction is from hour to hour, and that the storage that accumulated in one line can be utilized, and it does not necessarily mean because there are arrows on that map, that that is the

direction of the flow every day in the year or every hour in the day.

Q. I quite understand, Mr. Phillips, that this map was made for one day. By the way, why did you choose a day in 1930 rather than a day in 1929? Why did you choose January 23rd, 1930?

A. That was an indicative day of a winter season, a maximum day.

Q. Exactly. You considered that as a rather fair graphical portrayal of conditions that obtained and existed under something approximate to peak load conditions?

A. That day may not have been identically the same with another peak day, Mr. Butler?

Q. I know. No two things in the world are quite alike. Somehow I think you are quite able to understand my question. If that is the best, I shall let it lie. This was a pretty cold day, wasn't it?

A. Yes, sir, it was. I think it was——

Q. Rather typically cold winter day?

A. Yes, sir.

1777

[fol. 2573] Q. Do you remember the temperature?

A. If I remember correctly the mean temperature was about three above zero; the minimum would be about five below; and the maximum would be eight or ten above.

Q. You say ten below and ten above?

A. No, five below, if I remember correctly.

Q. Let me show you. I don't know whether I can read those figures correctly or not. See what you make out of them.

A. Mean temperature four above zero.

Q. What does this mean over here?

A. Minimum ten below; max. ten above; mean three.

Q. In other words, the temperature went ten below zero in the twenty-four hours and ten above?

A. Yes.

Q. That is a pretty typical cold winter day?

A. Yes, sir.

Q. That was your purpose in selecting that?

A. Not necessarily my purpose in selecting that day.

Q. What was it?

A. We make up a chart similar to that each year.

Q. Each year?

A. Yes. That is, not graphically as that is shown, but to get the chart of our peak day.

Q. Let's see those doggoned things for '28 and '29?

A. I don't have a map similar to that in '28 or '29.

Q. You say you make up something. Let us see what they are.

A. Do you want the maximum days sales?

Q. No, I want to see what you make up for each year.

A. I can give you the maximum day's sales.

Q. I thought you made up something?

A. No, not like that.

Q. You make up some graphical portrayal?

A. No, not graphical.

1778

[fol. 2574] Q. That brings us back to this, why you selected that day. I cannot understand that you, with your very great ability, would select this day without some reason, without some purpose. No criticism of the purpose, but what was it?

A. As I remember it that was the coldest day we had in that season, Mr. Butler.

Q. The thing that worries you a great deal in the management of your work is the ability to take care of peak demands?

A. Yes, sir.

Q. If you were able to take care of peak demands, the other demands solve themselves, don't they?

A. No, they do not.

Q. Oh, they do not?

A. No, sir.

Q. So maximum demand does not worry you any more than minimum demand?

A. It worries us considerably, but I will say this, that, inasmuch as each day in the year is somewhat different, the temperature, the wind velocity, pipe line troubles, compressor troubles, make necessary worries every hour and day in the year.

Q. But listen, Mr. Phillips. Do you mean now to say to the Commission that your difficulties on days of peak demands, heavy demands, are not greater than on days of lighter demand?

A. They are greater, but, Mr. Butler, as I understand what you said, that was the one day we had to worry in the year. That is not the case.

Q. No, no, I did not mean to say that. But I accept your explanation, because in this rapid fire talk we do misunderstand each other, and I do not want you to feel that I criticise you. Now, you as an engineer think that your old

1779

[fol. 2575] Logan Gas line, transmission line, out in Indiana, is used and useful for the purpose of furnishing gas to Columbus.

A. I will say this, Mr. Butler. When you accumulate storage——

Q. Couldn't you say yes or no and explain? I am not pressing you too far.

A. Yes, it is used and useful.

Q. I thought you would come to that. Do you suppose you could build one to Chicago——

A. If it had enough storage capacity, we might use that storage capacity, similar to the holder on West Spring Street, Mr. Butler.

Q. Oh, I see. Has that been a recognized method of storing for many years?

A. It is a great advantage to store in your lines preceding a zero spell.

Q. Do companies ever build transmission lines away out for a hundred miles just to get storage?

A. No, sir, not to my knowledge.

Q. What is the nearest distance from Columbus to this Logan line?

A. Approximately 35 miles.

Q. And down where you say you tie in that Z-50——

A. About 45 to 50 miles from Columbus.

Q. Now, let's see a moment. Can you tell me how much gas the Fuel Gas Company furnished to the Columbus companies and for industrial sales and for the users between Wheeler and Columbus on that day?

A. It would be impossible to secure a measurement as to the volume of gas delivered from each of the respective lines. However, the gross measurement in Columbus could be obtained. The industrial plants are not measured on a daily basis. Rather I think they have Emco meters and the seven day orifice meters.

Q. Did you make some estimate—look on your map 23——
1780

[fol. 2576] A. Yes, sir, I did.

Q. And in a block I see, "Industrial sales, Marion Road, 4,000 thousand"?

A. Yes, sir.

Q. Is that what you assumed they used per day?

A. Yes, sir.

Q. Right over to the right of that, starred, in black, you have 55,000 thousand, and under that, 52,500 thousand. What are those?

A. Supposed to be what the Columbus and the Federal used in the city and adjacent to the city.

Q. For that day?

A. Yes, sir. That is an estimate, Mr. Butler. That is not the exact figures.

Q. Oh, I see. Well then, these——

A. That is approximately correct.

Q. Now take that map and tell me how much gas Columbus used that day, of course, including the industrials on Marion Road.

Mr. Turner: Have you got a copy of the map there?

The Witness: You mean the Columbus Gas & Fuel, the Federal, and all the industrials adjacent to Columbus?

Q. Yes.

A. Approximately 59 million.

Q. That means how many thousand? Is that 59 million thousand?

A. No, 59 million cubic feet.

Q. That would be how many thousand?

A. It would be 59 thousand M c. f.

Q. 59,000——

A. Thousand.

Q. That is the marking you have used here?

A. Yes.

Q. Well, how much gas did you send up from Wheeler to Columbus on that day? Look at your map and tell me.

A. You mean to the City of Columbus or to pipe lines ad-
1781

[fol. 2577] jacent to the City of Columbus?

Q. Those two lines that run up to Columbus?

A. Approximately 52 million.

Q. But you supplied 59 million?

A. No, sir, the industrial plants in the vicinity of Lancaster—a great many cities were fed en route to Columbus. That gas is intermingled with gas being delivered from Homer, and it does not necessarily mean, because I have arrows showing volumes of gas delivered from Wheeler that it was all delivered to Columbus..

Q. I wonder what in the world it does mean. Now, just tell us what those amounts there do mean.

A. It is my honest estimate.

Q. Of what?

A. Of the gas that left Wheeler's Station into the various discharge lines.

Q. What left Carroll, isn't it?

A. No, sir, this left Wheeler's Station.

Q. Well, can you tell me approximately the amount that was used between Wheeler and Columbus?

A. No, sir, I cannot from memory.

Q. But can you get it for me?

A. For a one day period?

Q. Yes, that is what we are talking about. Of course, that is what your map is about?

A. It would be rather difficult to get an accurate figure. I would have to take into consideration leakage factors, the breaking down of the industrial plants, seven day charts, and make an estimate on the Emco meters, which are not tied back to any particular time.

Q. Well, that was no harder job than to make this estimate of the industrials here on Marion Road, was it?

A. No, sir.

1782

[fol. 2578] Q. Why not complete the picture then? That is what I want. Now, I leave that with you.

—. ——.

1786

Q. Now, how much gas did you send southwest through B on that day?

A. My estimated figures show 19,043 thousand.

Q. How?

A. 19,043 thousand. No, I am in error there. It is 26,043.

Q. In other words, before you reached Columbus on B you were sending through your lines on that day 26,043 thousand cubic feet?

A. That is my estimate.

Q. Now, how much gas did you send southwest of Columbus in Z-50 which I understand is really a continuation of B?

A. Yes, sir.

Q. Now, how much did you send southwest of Columbus?

1787

[fol. 2579] A. The gases from Treat Station and from Sugar Grove Station are intermingled at Linden.

Q. Please answer my question.

A. I am going to answer your question.

Q. Give your explanations afterwards. I have asked you how much gas went through Z-50 southwest of Columbus?

A. My estimate shows that there were 19,043 thousand cubic feet of gas delivered west, which may come from Wheeler or Homer or Treat, and it is possible for the gas to feed from the west to the east, and it did feed from the west to the east.

Q. You are very anxious to get west from the east in there? Why didn't you put your arrow there if it said from west to east on Z-50?

A. Mr. Butler, you could send 19 million west and send 20 million east in the same pipe line on the same day.

Q. But if you wanted to tell the whole truth, if you were anxious to show what you sent west, why didn't you show what you sent east?

A. It would have been very difficult to estimate it. It was very difficult to estimate it as it was.

Q. This is your map and your figures, not mine?

A. Yes, sir.

By Chairman Geiger:

Q. Now, Mr. Phillips, you testified a number of times about the changing flow of gas in these pipes during the day. May I ask you this question? Isn't the general and prevalent flow of gas from the southeastern part of Ohio towards Columbus rather than in smaller currents of flow in any other direction? The main channel is from West Virginia toward Columbus.

A. I wouldn't say the larger proportion at all times, Mr. Geiger, because it is possible to supply Columbus com-

1788

[fol. 2580] pletely out of northern Ohio——

Q. We know that, of course; but your main fields are down in the southeastern part of Ohio and in West Virginia and Kentucky?

A. There are large fields there, yes.

Q. Aren't they your main fields? You don't have any field to the north, up toward Cleveland?

A. Yes we do.

Q. Not of any very large consequence?

A. They are very large fields, Mr. Geiger.

Q. You won't admit then that the main portion of your gas that you consume in Columbus flows from the southeastern part of Ohio and Kentucky and West Virginia? I am not talking about each molecule of gas, but I am talking about the main portion of the flow of your gas?

A. I would say in a large part the gas does come down from the southern part of the state and from West Virginia. However, there is always gas coming from the fields to the north.

Q. We understand that, but those are not the main wells or the main sources of your supply.

A. Mr. Geiger, if I might further qualify my statement, we have about 85 million production in the north field, if that is of any consequence.

Q. Does that come to Columbus?

A. In part.

Q. Some of it does?

A. Yes, sir.

Q. It goes to Cleveland?

A. No, sir, not to Cleveland.

Q. It goes to some of the large northeastern cities?

A. No.

Mr. Turner: Oh no, it does not.

Q. Go to Youngstown, Akron and Canton?

A. No.

Chairman Geiger: All right.

[fol. 2581] By Mr. Butler:

Q. Mr. Phillips, during the recess I was examining the 1789

[fol. 2582] statement of temperatures by our local weather bureau, and I think I can maybe refresh you so that you can determine why you chose January 23rd, 1930, as the date.

You may remember that during December there had been no zero days and the temperatures for winter had been fairly high and quite evenly high. And then in January they continued so until January 18th, and there in a period of about six days we have four zero days. On the 18th it was eight below; on the 19th two below. On the 22nd four below—I am talking about the minimum—and on the 23rd eight below. Doesn't that rather clearly show that that made a typical peak load day?

A. Yes, I would say it would. However, if I might give you a little explanation of that monthly summary you have there, Mr. Butler, the minimum temperature as recorded on that is obtainable from the top of the Hayden Building; our minimum temperature is obtained by laboratory tests at Linden. The Government Bureau in arriving at a mean temperature——

Chairman Geiger: That is not necessary. The only thing we want to know is the 23rd day of January the coldest day in January, 1930.

Mr. Butler: Yes, and following a week of cold weather.

Chairman Geiger: All right. That is enough. Never mind what happened at a laboratory or somewhere else. It appears quite plainly it was one of the cold days of the winter anyway.

[fol. 2583] By Mr. Butler:

Q. Tell me whether on this January 3rd——

Chairman Geiger: 23rd isn't it?

1790

[fol. 2584] Mr. Butler: January 23rd, 1930——

Q. (Continuing:) That you estimated on your map, transmission Line B, was used for sending gas in any direction except from Homer towards Columbus?

A. The north twelve inch line out of Homer, which is a part of Line B, did discharge some gas into the D system which went north. The south twelve inch line discharged gas into line B, which went to west markets and in part to Columbus, which may have gone back to Canal Winchester, Groveport or other towns which were being supplied around the belt and back; it could go back to Carroll, Pickerington, Reynoldsburg. Those lines being all together, the gas will flow toward the point of least pressure.

Q. I will put my question again. On that day was the B transmission line used to send gas from Columbus and the vicinity of Columbus northeastward to Homer or in the direction of Homer?

A. It is possible when we were utilizing the storage out of that line that some gas did go back as far as Johnstown, New Albany and markets being supplied from that line.

Q. But it was used?

A. It was used at some market, yes, sir.

Q. Along after your two lines joined there?

A. It was used at some market, yes, sir.

Q. Now, having reference to the two lines from Wheeler into Columbus, if I understand you correctly, B-50 carried 29,000 thousand?

A. That is my estimate.

Q. B-25 23,000 thousand?

A. That is my estimate, yes, sir.

Q. Now, after that got out of Wheeler it did not go back

1791

[fol. 2585] into Wheeler?

A. No, sir.

Q. We have got that blocked out. Now under your 29,000 which is starred, you have 27,000. What do you mean by that?

A. That is two different days, one day for 1929 and one day for 1930.

Q. How is that?

A. One day represents 1929 and one day represents 1930, if I remember correctly.

By Chairman Geiger:

Q. Were they the same day of the year or were they two cold days in each year?

A. Two cold days one in each year.

Q. The substance of what you wish to convey to the Commission is that you in testing the amount of gas or ascertaining or estimating the amount of gas have selected a cold day in 1930 and a cold day in 1929?

A. Yes, sir.

Q. You purposely sought a cold day?

A. Yes, sir, we did.

Chairman Geiger: That is all right

By Mr. Butler:

Q. Now what day in 1929?

A. I think it was January 13th, 1929.

Q. I want you to be sure of that.

Mr. Turner: It is on the right hand side of the map.

A. January 13th, 1929.

Q. Did that come at the close of a cold period.

A. I don't remember whether it was at the close of a cold period. However, I do know it was a cold period at that particular day.

Q. Do you know what the low and high were on that day?

A. The mean temperature according to his map was four above zero, which would indicate that we had a sub-zero temperature during the twenty-four hour period.

1792

[fol. 2586] Q. Well, get that for me. You have it no doubt. You have used it over on the other?

A. Yes, sir.

Mr. Turner: Will you make a memorandum of that?

Q. To which day do your arrows refer?

A. January, 1930.

Q. What about 1929?

A. I didn't attempt to put them on.

Q. How?

A. I didn't attempt to put them on because conditions change from one year to another.

Q. They change from hour to hour, don't they?

A. Yes, they do.

Q. I thought so. I don't want you to extend that time. What did you put them on for if you did not mean to carry out the comparison?

A. Those were really put on for my own information.

Q. Why for your information?

A. We look upon the maximum day as a kind of barometer, Mr. Butler, as to what we can do and what it is possible to do, and those are just my estimates, my conclusions.

Q. Well, I see that the differences between these two days, as you have indicated them, are fairly slight?

A. That is fairly possible.

Q. Very comparable aren't they?

A. Very slight difference, I presume.

Q. Well, do you want to turn your arrows around because of that slight difference?

A. In some cases it is possible they would have to be changed.

Q. Now, just tell me where you would reverse your arrow for 1929?

A. I couldn't remember back that far. I would have to get our pressure records to determine that.

Q. Did you determine these arrows you have with respect 1793
[fol. 2587] to January 23rd, 1930 from your pressure records?

A. I estimated them, my own judgment. That may have been the volume of gas that moved in that general direction; however, that does not necessarily mean that the gas is flowing in that direction at all times in the 24 hour period.

Q. Well, good gracious, isn't the same material available for 1929 that you had available for 1930?

A. No, sir.

Q. Why not?

A. There are many changes in the pipe line system; there are many changes in the compressor plants. Whereas in 1929 we may have had many compressors out of service, I could not say that we had the same compressors out of service in 1930. We may have had pipe line troubles in '29 that we wouldn't have had in '30.

Q. This map is not truly a graphical portrayal of January 23rd, 1929?

A. Only in so far as the intake measurements or displacements into the compressor stations.

Q. But my dear sir, you have gone over and under the starred amounts of deliveries that you have on your map for January 23rd, 1930, you have immediately thereunder in practically every case—sometimes above—but in very close connection, shown these amounts that are not starred?

A. Yes.

Q. Didn't you believe that——

A. That is my best judgment of an estimate, yes, sir.

Chairman Geiger: Are you about to leave that, Mr. Butler? If you do, I would like to get a little sidelight here.

Mr. Butler: I am changing my line slightly. Possible Your Honor better inquire now.

By Chairman Geiger:

Q. The only thing I would like to know, Mr. Phillips, is what we are to draw from the evidence that you have sought

1794

[fol. 2588] to convey to us by these maps from the flow of gas that you have indicated there other than your judgment that the entire pipe lines are used and useful in connection with delivery of gas to any consumer anywhere connected with the pipe line?

A. It is one big network.

Q. That is what you are trying to convey to us?

A. Yes, sir.

Q. Have you told us anywhere how we are to tell how much of that net work is devoted to Columbus as distinguished from the amount and proportion of it that is devoted to other consuming cities?

A. The network is so connected that there would be very, very small parts of the system that could not be and are not utilized and useful in supplying of gas to Columbus and other markets.

Q. Get my question and answer it as quickly as you can. How we are going to determine how much of that network is used and useful for the purpose of supplying Columbus? You cannot manifestly put the value of the whole network for use in Columbus, because if you did that, then when you would examine the case at another place in question you would want to put the entire value used and useful in that city, and you would have as many times its value as there were cities who were consumers. Now, we must have some rule to which you can point us. How much of that network, assuming the entire network is used, is as a fact used and useful for Columbus? Have you any practical suggestion on that?

A. No, sir, I have not.

Q. Is there any to be made?

A. Not to my knowledge.

Q. You do not claim for a moment that the entire pipe line and its entire value is now to be allotted to Columbus, do

1795

[fol. 2589] you?

A. No, sir, I do not.

Q. How much of it is to be allotted?

A. I couldn't say.

Q. Then what good is your map and how will it help us any?

Mr. Turner: If Your Honor please——

Chairman Geiger: Let him answer.

Mr. Turner: I offered this map. He did not offer this map.

Chairman Geiger: He has testified to it.

Mr. Turner: You are asking a purpose, and this man presents evidence here not for a purpose but to get the truth. I am putting the map in for the purpose.

Chairman Geiger: We are not going to sit here, Mr. Turner and listen for week after week on testimony about a map unless we know what it is about. Now, I have asked him——

Mr. Turner: I have tried to——

(Question read.)

Mr. Turner: We object.

Chairman Geiger: Can you answer that question?

Mr. Turner: Wait until I have a ruling on the objection.

Commissioner Bricker: Let him answer.

Mr. Turner: It is an improper question.

Chairman Geiger: Mr. Bricker, will you and the other commissioner rule on the question?

Commissioner Bricker: Oh, let him answer.

Mr. Turner: Note an exception. I want to say in behalf of my exception that this map was presented and the evidence so shows, for the purpose of showing the amount of interstate gas.

Chairman Geiger: Now, would you permit the witness to

1796

[fol. 2590] answer the question? If he cannot answer it he can say so. If he can answer it and won't answer it, he must answer it.

Mr. Turner: He has not shown any inclination not to answer it.

Chairman Geiger: You have, though. Let him answer.

Mr. Turner: But you are characterizing the witness all the time and it is not fair. You are deciding the case as you go along, and I say that is not proper.

Chairman Geiger: How do you know what I am doing?

Mr. Turner: Because you say it. You say this has got to be considered. We say it cannot be allocated. And you are deciding that it can be allocated.

(Question read.)

Mr. Turner: We still object.

The Witness: I have tried to make an honest estimate as to how I thought the gas flowed into the pipe lines, as to what I thought the compressor displacements indicated as to the various intakes into the stations. I have not taken into consideration all the directions of the flow of the gas, and it would be almost impossible to prorate that part of the gas that flowed one direction for several hours and then flowed another direction.

Chairman Geiger: That is your answer?

The Witness: Yes, sir.

Chairman Geiger: All right.

By Mr. Butler:

Q. Mr. Phillips, this was my oversight, but on the southeast corner, the lower lefthand corner of your original map, I find this, "The Ohio Fuel Gas Company, diagram showing compressor stations, pipe lines, direction of flow and vol-

1797

[fol. 2591] ume of gas produced, January 13th, 1929; mean temperature on this date, plus four degrees."

A. Yes.

Q. You did mean to show the direction of the flow, didn't you on that map? Look at what you have said; look at your own maps.

A. That is in part true of the direction of the flow of the gas. It is not all true. The gas floated different directions.

Q. Are you very proud of that answer considering what you put on the map?

Question objected to by The Columbus Gas & Fuel Company.

Mr. Butler: All right, I will withdraw that.

Q. Mr. Phillips, you have two pipe lines, transmission lines, running from Wheeler up to Toledo, don't you?

A. Yes, sir.

Q. What are their numbers?

A. T and T-50.

Q. Each the same size?

A. Not all the way through to Toledo. They are in most part ten inch. There is some ten inch in one and eight in the other.

Q. I don't find any eight.

A. I have not attempted to show all of the sizes of the pipe in these various lines, Mr. Butler.

Q. When did you take charge of the operation of those transmission lines?

A. I cannot recall the date at this time.

Q. Can't you approximate it? How many years?

A. I would say seven or eight years ago.

Q. It was not owned by The Ohio Fuel Gas Company then, was it?

A. I don't know.

Q. You didn't know it?

1798

[fol. 2592] A No, sir, that is not my end of the business.

Q. Oh, how could you be so ignorant of it? So as far as you know, as far as you actually know, from the standpoint of your management of it, there has been no change in the line in seven or eight years.

A. There have been various connections to that system. There have been various points where we have made deliveries of gas into the system. There have been exchanges of gas which have been accurately measured. There have been other pipe lines which have been laid to Toledo and interconnected with that system south of Toledo. There have been numerous changes, Mr. Butler.

Q. I know, but I mean changes in ownership?

A. I know northing of that. That is not my end of it.

Q. So far as you know you were doing this for The Ohio Fuel Gas Company for seven or eight years?

A. Yes, sir.

Q. Will you tell the Commission just how T-50 and T-10 running from Wheeler to Toledo are used and useful in respect to furnishing gas to the City of Columbus?

A. It is tied in with line B at New Albany.

Q. When did you have that tie-in?

A. It has been made many years, Mr. Butler.

Q. There is a valve on that; that is a valve connection?

A. Yes, there is a valve there. There is a valve at any connection.

Q. On some you show them apparently and some you do not?

(No reply.)

Q. Do you mean to say that in all of these interconnections that you have shown there is a valve?

A. You can shut one system off from the other system. In the event you have trouble on one system, you do not lose both systems.

1799

[fol. 2593] Q. That is, they are arranged so that you can utilize them if the necessity arises.

A. Yes, sir. Some connections are open at all times, others are not open.

Q. I think on your map 23 you have not shown a connection between B and T-50?

A. It is there regardless of whether I have shown it or not, Mr. Butler.

Q. And what if trouble developed on T-50 and T-10 between that New Albany connection and Wheeler, how would you get gas into T-50 and T-10 above that point?

A. If the pressure was lower on line T or T-50, or if you could increase the pressure at Treat and carry a higher pressure, which would make possible the delivering of gas from line B into T or T-50, additional gas could be supplied to Toledo. Reversing the operation, if line B was lower than T and T-50, gases can be delivered from Wheeler to T and T-50, to New Albany, and into B to Columbus and other markets. Further than that the storage in T and T-50, north of line B can be utilized into line B and delivered into Columbus and west markets.

Q. Well, on this January 13th, '29, and this January 23rd, 1930, you used your gas north, didn't you? You used all of your gas north, didn't you?

Mr. Turner: Listen to the question now.

Mr. Butler: Oh, he listened to the question. That is his business.

A. I don't remember in 1929 whether on that particular day referred to on the map that we did utilize T and T-50 at New Albany to deliver into line B or not. However, we did have frequent occasion to use that connection and do deliver gas into line B.

1800

[fol. 2594] Q. Does line B deliver into T-50?

A. Ordinarily the pressure is higher on T and T-50 than it is on line B, so that it would be impossible, unless pressure conditions were changed, for line B gas to be delivered into line T and T-50, but we have also delivered gas in that manner.

Q. Now, take your T-50 and your T-10 north of the New Albany connection, how is that used and useful for Columbus, unless as you say, you use it for holder purposes, packing purposes?

A. It is approximately 158 miles from Toledo to Wheeler through two ten inch lines. Those two ten inch lines are operated at very high pressures. There is a connection north of what we call our Tonkin Station, where the 16 inch line discharging gas from Pavonia towards Toledo is tied into the two tens. It is possible to deliver gas from Pavonia back into line B and to southwest markets. However, in most part we utilize the storage out of T and T-50 to augment the supply in Line B.

Q. Do you seriously mean that this Commission should understand that this T-50 and T-10 are used and useful to Columbus, because away up just south of Maumee you tie a line into them?

A. You have an enormous storage capacity there, Mr. Butler, which can be utilized and is utilized.

Q. Well, Toledo uses considerable gas, doesn't it?

A. Yes, they do.

Q. And you have now up *hear* Findlay a connection from T-50 and into D-40?

A. Yes, sir, ten inch connection.

A. And on this map you apparently show gas going in there?

A. Yes sir.

A. And that goes into such cities as Fostoria and Tiffin

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[fol. 2595] and Carey and Upper Sandusky and Bucyrus?

A. Yes, sir.

Q. You said, I think, that line H from Wheeler to Zanesville in cold weather flows to Zanesville?

A. Yes, sir, in the daytime at least.

Q. Well, you are going to modify that a little bit, are you?

Mr. Turner: We object. He has not testified a bit differently from what he testified in chief, no modification at all.

Mr. Butler: Well, Mr. Turner, you may be sworn, if you want to.

Mr. Turner: All right, I am simply appealing to the record.

Chairman Geiger: The objection is overruled. A motion to strike out would be more appropriate, but not having made it we will overrule the objection.

Mr. Turner: Note an exception.

Q. But this, Mr. Phillips, didn't you say that in cold weather the flow was to Zanesville and in warm weather there was a surplus amount of gas and it came from Zanesville?

A. Mr. Butler, if I might go into possibly a little elaborate explanation of that, I might cite that the industrial plants in the vicinity of Zanesville, plus the domestic markets, govern that. But in most part on the cold day there is gas being delivered from Wheeler Station to the Zanesville market, whereas, if the temperature modifies at night, a surplus gas is delivered from the Cambridge, Noble, Washington County fields, Malta Station, Crooksville Station, to Wheeler's Station.

1802

[fol. 2596] Q. On page 1507 you said this, I think in answer to Mr. Turner's questions: "The Ohio Fuel delivers gas to Zanesville markets from this station on cold days; on the warmer days this station delivers its gases to Wheeler's Station through line H, so that line H is a discharge line part of the time and a suction line the other." Is that right?

A. That is true.

Q. All right. I wish you would tell me the production of Ohio Gas south of Wheeler and the production of West Virginia and Kentucky gas on January 23rd, 1930?

A. You have the compressor displacements on the map there.

Q. You have it there. I don't want to get into any difficulty about misquoting it.

A. Do you want me to call them off to you?

Q. I want you to call them off. I want to know what that is.

A. The figures that I will call are not necessarily the Ohio Fuel's production. It is Ohio Fuel's production plus purchased gas.

Q. That is what I mean. You are quite right about that. Using Ohio production in the broad sense, gas from Ohio, Ohio gas.

A. Lick Station, on January 23rd, 1930, produced, that is, Lick's Station field produced, 19,956 thousand, which is measured by compressor displacement.

Richland Station's field produced 8,585 thousand:

Q. Won't you give it in thousands, because that is what you carry it by there?

A. Creola, 6,653 thousand;

Benton, 5,000 thousand;

Laurel, 700 thousand;

Sutton, 4,279 thousand;

1803

[fol. 2597] Meigs, 4,639 thousand;

Union Furnace, 400 thousand;

Gay Station, 3,500 thousand;

Barlow Station, 3,084 thousand;

Grimes Station, 13,222 thousand;

Gore's Station, 1,134 thousand;

Malta Station, 2,048 thousand;

Now if you would run a ruler across there, those would be the stations, which would be south of Wheeler, south field, but not in the eastern part of the state. Do you want me to go into the eastern part of the State?

Q. No, you are quite right. I mean to exclude what would run down into the eastern part of the State.

Q. Now you better give West Virginia for that day and Kentucky.

A. Kenova, 12,290 thousand;

Ravenswood, 50,000 thousand;

Reserve, 21,268 thousand;

Cove Lick, 11,911 thousand.

Q. Can't you combine Reserve Field and Cove Lick into Kennedy?

A. Yes, sir, 33,179 thousand.

1804

[fol. 2598] And also—

F. W. PHILLIPS, resuming the stand for further cross-examination, continued his testimony as follows:

Cross-examined by Mr. Butler:

Q. I think before the noon adjournment I had asked you to give me the Ohio field production of January 23rd, 1930, south of Wheeler?

A. Yes, sir.

Q. Now, I want you to give me the production north of Wheeler, including no part of what you have given us south of Wheeler, up to and including Brown. That is north of Mt. Gilead?

A. Avon Station—that station furthest north—460 thousand.

Q. Where is Avon?

A. Right next to Lake Erie there, Mr. Butler, near Lorain.

Q. I said up to and including Brown.

A. Did you want me to come from the north to the south?

Q. I wanted you to go from Wheeler north, up to a point taking in Brown.

A. That will include the deliveries in the eastern field?

Q. Yes, that will include those.

A. Heslop Station 1,416 thousand. Hagan's Station 4,880 thousand, which is in part some of Heslop's gas; Elk's Station 2,479 thousand;

Westland Station, 1,893 thousand;

1805

[fol. 2599] Cambridge Station, 3,250 thousand, which is in part the surplus gas being delivered from the Elk, Hagan and Heslop group.

Treat Station is 35,430 thousand, which is gases delivered from various stations in the north field to Treat, from Cambridge Station, from Elk, Hagan and Heslop, Crooksville and many other stations.

Brown's Station, 15,068 thousand.

I think that covers the stations north as far as Brown's.

Q. Is there any over Coshocton way on J?

A. Buckeye Station. On that particular day that station was not in operation.

Q. Where is Buckeye Station?

A. It is not shown on this map, because it was not in operation.

Q. There is some production over on the line west of Scio, isn't there?

A. West of Scio?

Q. Or Southwest of Scio.

A. Yes, sir, there is production in Wheeling Township, in Guernsey County, Oxford, Tuscarawas, and Washington, Tuscarawas.

Q. Amounting to how much?

A. That is, of the 3,250 thousand I referred to here or of the present?

Q. Well, that is for you to say. I am trying to get what your production of Ohio gas was on that day.

A. I would say that in the Cambridge Station, which would pull the gas from the Scio field, in part, would be approximately one million. The other gases are handled at Cambridge.

Q. What do you mean by one million?

A. 1,000 thousand.

Q. For example over there towards Scio you say production direct to market 500 thousand; that doesn't go

1806

[fol. 2600] through Cambridge Station, does it?

A. No, sir, it does not.

Q. And over toward St. Clairsville on O-145?

A. That gas can feed to St. Clairsville or it can feed back into O-58, and be discharged to Cambridge or to Zanesville, to Treat and Columbus and western markets.

Q. That is 1,500 thousand?

A. Yes, sir.

Q. Now, do you think we have picked up all of the production in there?

A. No, sir, there is some production in the vicinity of Zanesville that feeds directly into the line without going through any compressor station at the point which feeds into the system.

Q. That is 2,000 thousand?

A. Yes, sir.

Q. Now, have we picked it all up?

A. We have some field production in the vicinity of Newart which feeds into the Newark system, and the surplus goes into the K-30, which can go to Homer or Wheeler and reach Columbus and be discharged north or west.

Q. That is 1,500 thousand?

A. Yes, sir.

Q. Now do you find any more?

A. There are many points in that field that I have not attempted to show here where there is production. There is production on the O-16 line, and the Barnesville line. There is production on the O-298 line. There is production on O-55 going into Cambridge. Various wells are tied into the transporting lines that are not located near a compressor station.

Q. Now, shall I understand that in this region there are field productions that you have not indicated on this map?

A. Small deliveries, yes, sir; that it would be impossible to secure a measurement of

1807

[fol. 2601] Q. In a general way what would you say would be the total?

A. I couldn't answer that, Mr. Butler.

Q. No idea?

—. ——.

By Chairman Geiger:

Q. You spoke of having left out one station because it was not used on the 23rd of January, 1930. Are there any considerable number of stations that are not depicted on this map because they chanced not to have been in operation on January 23rd, 1930?

A. We have a little station up in Holmes County, Monroe Station. It discharged such a small amount of gas that it was not shown on this map. Buckeye Station was a station that was not used during certain periods, and that was not shown on this map. However, that little Monroe Station was in operation, but it was so small that I did not think it necessary to include that on this map.

Q. Now, I come back to my original question and ask you to indicate as nearly as you can out of your great knowledge of this region the amount of production of Ohio gas on that January 23rd, 1930, in this particular region north of Wheeler and stopping with Brown that you have not already mentioned and described. You said there are some productions that are not shown there. Now, I am trying to get you to give us your best idea of the total of those productions.

A. That is rather a difficult question to answer, Mr. Butler, in that the line pressure would govern what the well would deliver. If you had a high line pressure it would necessarily retard the flow from the well. If you had a low pressure, of course, the well would deliver additional gas. For me to attempt to pick out of the clear sky, without having any measurements on those wells, and tell you what

1808

[fol. 2602] those wells would deliver on that particular day against the pressure, without having any measurement, I cannot give you an intelligent answer.

Q. Not even an approximation?

A. I might give you a blanket estimate, which I will not stand back of as being accurate, if that will serve your purpose.

Q. I shall be glad to have your idea about that.

A. I would say from five to eight million a day.

Q. You mean from five to eight thousand thousand?

A. Yes, sir.

By Chairman Geiger:

Q. I did not understand what you meant by that. You mean that is in addition to what you have shown on your map?

A. Yes, sir, the wells feeding into those various lines.

Q. That is not indicated on this map?

A. Yes, sir, that is it.

By Mr. Butler:

Q. Now, tell me the amount of Ohio gas produced on that day for the remainder of Ohio north of Brown?

A. Miley Station, 5,300 thousand;
Perrysville Station, 6,181 thousand;
Production in Paint Holmes, 1,500 thousand;
Ashland Station, 15,655 thousand.

Mr. Turner: Did you say sixteen or fifteen?
The Witness: 15,655 thousand.

By Mr. Butler:

Q. Where is Ashland?

A. Right up in the northeast——

Q. I see it now. Thank you.

A. West Salem Station, 5,000 thousand;

Pavonia, 44,283, which in part has been discharged from

1809

[fol. 2603] Perrysville, Miley, Ashland and West Salem;

York, 10,193 thousand, which is in part each delivered from North Eaton;

North Eaton, 2,366 thousand;

Avon Station, 460 thousand;

Field production in vicinity of Elyria, 3,500 thousand.

Throughout the entire state there are many cities fed off of the field lines before the gas is delivered to the compressor station. I have tried to make an intelligent estimate of those markets and towns being served from the field and classify them into domestic consumption, North Field, domestic consumption, United Field, domestic consumption, South Field. Those totals are respectively 5,000 thousand, 4,000 thousand and 6,000 thousand.

In addition to that we purchase small quantities of gas in the vicinity of Tiffin, in the vicinity of Genoa, and gases are fed into the field transmission system arteries.

Q. When you speak of domestic consumption North Field of 5,000 per day that means gas that is used before it reaches the point where you can measure it?

A. Before it reaches a compressor station.

Q. And these are fairly checked against the uses that you know in those various districts?

A. Yes, sir.

Q. And that is true of the United Field and the South Field?

A. Yes, sir.

Q. Now you speak of Pavonia. On that day it is credited with 44,283 thousand?

A. Yes, sir.

Q. Do I understand that that is only partially in addition to what you have already recounted?

A. Yes, sir, Pavonia Station feeds on what we refer to

1810

[fol. 2604] as the Ashland County field. In addition to the recovery from that field several small stations discharge gas to Pavonia. Pavonia in turn condenses the gas into high pressure and transports some and delivers some into the transporting line to the markets.

Q. How did you arrive at the amount of Ohio gas there?

A. At that particular point we have orifice measurements.

Q. You see what I am getting at. I am trying to get the amount of Ohio gas on that day. Now, you have given me these other amounts, but when you come to that station, you say that that not only includes gas that should have been theretofore accounted for but also gas that has been included——

A. Yes.

Q. In these other measurements?

A. Yes, sir.

Q. Now, I am asking you to tell me how much there should be credited as new gas, Ohio gas, that you have not otherwise accounted for in these schedules?

A. Those measurements at Pavonia are not separate. They measure the gross intake. It would only be through an estimate that I would be able to give you an idea, any idea, as to what was delivered to the Ashland Station, and I have attempted to do that on this map. If you will note, the Perrysville station discharged 6,181 to Pavonia, Miley 53, Ashland 11,960 out of the Ashland field; 5,000 from the West Salem field.

Q. You mean if I add those and subtract it from 44,283 I will approximate the amount of Ohio gas in the Pavonia Station not otherwise accounted for?

A. Plus what we purchased from the Preston Oil Company.

Q. Well, what did you purchase from the Preston Oil Company?

1811

[fol. 2605] A. If I can read this correctly, there is about approximately three million.

Q. That was all Ohio Gas?

A. Yes.

Q. 3,000 thousand?

A. Yes, sir.

Q. Does the Ashland line feed out north in L-53, or does that indicate that it comes over to Pavonia?

A. It can feed three directions out of Ashland Station. It can feed gas to Pavonia and can discharge gas to Treat and can discharge the gas to York.

Q. Then you do not know that the 15,655 thousand came over to Pavonia?

A. That is my estimate.

Q. You mean your estimate of the amount of gas that came over to Pavonia?

A. The total Ashland was 15,655. 12,861 went from Ashland to Pavonia.

Q. Now you straighten me out. That gets it all right. That is all on that. That is what I meant. How much production, Ohio production, do you have west of the line D and D-11; in other words, I am looking at the line that runs from the vicinity of Mt. Gilead north to Sandusky. How much Ohio production west of that line?

A. We are purchasing gas in the vicinity of McCutcheonville.

Q. Where is that?

A. That would be right near where the Upper Sandusky connection is tied on, north of Bucyrus. We purchase gas from in the vicinity of Genoa.

Q. On that day or not?

A. I can't recall what quantity we might have purchased on that day. I know that we have purchased there all during the year 1930. I am sure we purchased gas there in the year '30.

Q. What production?

A. We have no production there.

1812

[fol. 2606] Q. I mean how much did you purchase?

A. I cannot tell you right offhand from memory.

Q. You cannot approximate it?

A. No, sir.

Q. From what company?

A. I cannot tell you the official name of the company. I could secure that.

Q. You secure that and then you can give me that. Is that a large or small field? I am having reference to January, 1931.

A. Comparatively small. We also purchased a small quantity of gas up in Shelby County. We purchased gas——

Q. Is that around Tiffin somewhere? Is Tiffin in Shelby County?

A. No, sir, that is Sidney and the Piqua district. In addition to that we purchased gas in the vicinity of——

Q. How much at that place do you purchase?

A. I couldn't give you that figure.

Q. Is it a large or small figure?

A. It is comparatively small. We purchased gas in the vicinity of Kenton.

Q. Is that large or small?

A. Comparatively small.

Q. Now, what do you mean by comparatively small production?

A. Less than two or three million a day.

Q. Less than two or three thousand thousand a day?

A. Yes, two or three thousand thousand. We purchase gas in the vicinity of Tiffin, which would be a comparatively small volume. We purchase gas in the vicinity of Genoa, which would be a comparatively small volume. I think for the most part that is all the gas we purchase in the western part of the state and northern.

Q. Have you any way of indicating those amounts on this map?

A. For that particular day?

Q. Yes.

A. I think that we will find the same condition existing

1813

[fol. 2607] there, that is, the Emco meter measuring that gas. It will be a blanket estimate. If that will meet the purpose we can secure the information.

Q. Yes, I understand fairly that all of these matters you are giving us are estimates, and I would be glad to have that, because I am trying to find everything on that day?

A. Yes.

Q. Now, taking your lines west from Wheeling, A and Z, and Cincinnati, Piqua, Muncie, over to Indiana, are there any Ohio productions on those lines?

A. There is some Ohio production delivered into Z.

Q. Where?

A. Up near Sidney.

Q. How much?

A. I think you asked me that question before, Mr. Butler, and I told you I would atempt to make an estimate.

Q. You mean I asked you a week ago?

Mr. Turner: No, no.

Commissioner Bricker: Just a little bit ago.

Mr. Turner: Just a litle bit ago. Sidney is in Shelby County. You are asking about this Z.

Q. My difficulty arose from the fact that I visualized it as going over to these lines going north to Toledo?

A. Yes.

Q. Is that the only production?

A. Line A does not have any production leading into it so far as I know.

Q. Nor Z-50?

A. Line Z-50 does not have any production delivering into it.

Q. What do you call this line where it branches off from Z-50 to Cincinnati; is that what you call A?

A. Yes, sir.

Q. I see. By the way, does your Ohio Fuel Gas Com-

1814

[fol. 2608] pany get production from Cincinnati?

A. That is, does Cincinnati send gas back north?

Q. Yes.

A. We have on different occasions, when we have had pipe line troubles, requested Cincinnati to discharge gas back north, and they have favored us by doing so.

Q. And for that reason you think that the pipe line to Cincinnati is used and useful for Columbus production?

A. I think it is, yes, sir.

Q. Can you think of any other reason that you assign for that?

A. Considering the diameter of the pipe, the available storage capacity, the flexibility in operation and the routing of gases, I think that line A is used and useful in supplying gas to Columbus.

Q. Is that part ever used and useful where west of Dayton it turns southwest to Cincinnati, from there down to Cincinnati?

A. I doubt very much, Mr. Butler, if that part south and west of Centerville, which is the property of The Union Gas & Electric Company, as I understand it, could be increased to such a pressure from the Cincinnati end as to really help Columbus to any great extent. However, some gas could come back that way, and the portion of the line

between Logan, Howell and Centerville can be and is used in helping supply Columbus, which terminates the Ohio Fuel Ownership at Centerville.

Q. In other words, your line terminates at Centerville?

A. Yes, sir, that is where we sell gas to The Union Gas & Electric.

Q. Is there where you meter it to them?

A. Yes, sir.

Q. And that is where on January 23rd, 1930, you got that estimate of $28,460.00?

A. No, sir, that does not necessarily mean that. That 1815 [fol. 2609] means flowing toward Cincinnati. That is not the exact measurement at Centerville. Centerville is 25 miles south and west from the crossover to Logan-Howell. There is Xenia, Cedarville and Wilberforce and other towns fed there.

Q. Now, without any further argument, please make a note and tell me how much gas you did send to Cincinnati on that day. You take these lines running south from A and Z to Greenfield and Wilmington, there seems to be a joint line, and where it branches off to Wilmington, do you consider that as used and useful in the furnishing of gas to Columbus?

A. In the storing of gas in that line it would be possible for the excess storage to be delivered back in to the Z-32 line and east to Columbus and to those markets, and float both ways.

Q. Now, do you mean to tell this Commission that, looking at your map of January 23rd, 1930, the amounts delivered on the various lines, having reference to Z and A and Z-50, those lines and lines Z-34 and Z-35, could on that day have possibly aided Columbus?

A. I know it and they did.

Q. All right. Will you tell me whether the line C-8 is used and useful in furnishing production to Columbus? That is the one that goes to Chillicothe.

A. Those small lateral lines, Mr. Butler, would be governed pretty much as Z-34 is, in that if we packed those systems, it would be possible to utilize the available storage in supplying Columbus and other markets.

Q. Well, on that day how much was packed in there? What was the situation?

A. I cannot tell you at this time what was packed in there. I would judge it to be between 100 and 150 pounds.

1816

[fol. 2610] Q. How many thousand thousands?

A. I cannot tell you without figuring the cubical content and then figuring an excess pressure multiple.

Q. I am greatly interested in that. I would like for you to produce some figures on that Chillicothe line that will graphically illustrate your theory.

A. You want the cubical contents?

Q. I don't want anything, but I want you to put into your own formulas, in your way, a demonstration of how that line on that map on that January 23rd, 1930, helped in the Columbus production?

A. You would not expect me to do it here at the present time.

Q. Oh no, no. To be perfectly frank I never expect you to do it, but that is a matter for you.

Mr. Turner: And the jury.

Mr. Butler: You said that, not I.

Commissioner Bricker: The jury is not presumed to know anything about the subject matter.

Mr. Turner: You made the speech to the jury.

Q. How did you determine or meter the gas into Chillicothe?

A. I cannot tell you as to whether or not that town in check measured or not. In some of the larger communities towns are check measured.

Q. What do you mean by that?

A. An orifice meter is installed and measured the inlet gas to the city. The difference between the gross sales and the gas delivered into the city is represented by unaccounted for and lost gas.

Q. Well, isn't that the standard method? Aren't you trying to do that as far as possible?

1817

[fol. 2611] A. We do it on some towns. Every town is not check measured. That would represent too large an investment.

Q. Is Chillicothe? You don't know about that?

A. I don't know at this time.

Q. How about Greenfield and Wilmington?

A. I can't remember as to those towns?

Q. Toledo is?

A. We sell gas to Toledo which is measured by orifice meters.

Q. Now, when you say Toledo—you do not say it. Therefore, I cannot ask you about it. But what on that January 23rd, 1930, did you deliver to Toledo?

A. I can't tell you from memory.

Q. Make that up. Make a note of that.

A. You want to know how much natural gas we sold to the Northwestern Gas Company?

Q. Yes.

A. January 23rd?

Q. Yes.

Mr. Turner: May I make a suggestion for clarity there, Mr. Butler?

Mr. Butler: Certainly.

Mr. Turner: No, that is all right.

Q. You show only one line running in there?

Mr. Turner: That is the way it runs in there.

Mr. Butler: The others all come together.

Q. Will you tell me how D-88 is used and useful in respect to Columbus, the line running from Mt. Vernon over to Delaware, Ohio?

A. The north twelve inch line, B, out of Homer is used as both an intake and discharge, as I have previously testified. The six and eight inch line, D-88 line, is packed or may be packed at night. During the daylight hours the

1818

[fol. 2612] twelve inch north line out of Treat Station may be used as an intake line, which would make possible the delivering of the surplus gas from the D-88, which is accumulated at night, from Treat Station to Western Ohio markets including Columbus.

Q. The same answer you would make in respect to D-4, the line from D over to Marion?

A. Yes, sir, each and every line can be packed.

Q. Well, D-4 on that day as well as on January 13th, 1929, is indicated as sending gas to Delaware.

A. You would naturally think, Mr. Butler, with a market on the extreme end of a line as large as Delaware, if there

was no other source of production, that the gas would have to flow that way from the producing area or from the compressing station, although, if there is a surplus storage available, that storage can be utilized for other markets. So you could not point the arrow the other way without showing some production coming into Delaware.

Q. Take your arrows and tell me how the Marion line got down to Columbus. North of that you have it pointing south and south of that you have it pointing north. How did you get that line there?

A. In that particular system, where, in the early morning, you may have a fairly packed pressure, in the evening the flow of your gas will be towards the point of least pressure, so it is possible to float gas from the Norwalk, Lorain, Elyria, Sandusky and the entire system back toward Homer.

Q. Let me put it another way. Suppose Delaware had not been at the end of D-88, you never would have recommended running a line across the country there in which

1819

[fol. 2613] to pack gas, would you?

A. No, you would not.

Q. No. Well, you don't believe in allocation, do you? It is not in your dictionary.

(No reply.)

Q. Well, since you would not do that——

A. I did not say I would or would not.

Q. Well, I am not talking about allocation now. You would not build a line out across the country in order to pack gas to assist Columbus if you did not have a town at the end of it.

A. No, I don't believe that our company would. It is not up to me to build lines or set forth the policies of the company.

Q. I know it is not up to you but I am asking you as an expert. Wouldn't that be foolishness?

A. A pipe line is comparable to a high pressure storage holder. The same result can occur in each, although the pipe line would be more expensive to construct than a high pressure storage holder.

Q. Would you be good enough to point me out some of these storage tanks that are in the shape of transmission lines that do not have towns at the other end of them?

A. No, sir, I don't believe I could point out except in that field—all field lines are packed preceding cold spells to get the available storage capacity there, and all transmission systems are packed with that sole idea in mind. Mr. Butler, I would like further to qualify that just a little bit. On this note of our gross sales being 309 million for that day, that is a 24 hour delivery. Now, during the peak demand, which would be from nine until twelve in the morning, your sales may run as high as at the rate of 350 million. Now, if you haven't some storage, some surplus, of gas at some

1820

[fol. 2614] point to absorb that extreme heavy demand, I am afraid that we would have numerous shortages. You have got to have some place, some flexibility and some storage capacity.

Q. Well, you built this transmission line over to Delaware for the purpose of serving Delaware and the communities along the way?

A. Yes, sir.

Q. Now, having built it, you say that you make some use of it for storage purposes?

A. Yes, sir.

Q. Now, just tell the Commission how you would allocate the value of that transmission line between Delaware and the communities that take gas off of it, and Columbus, for example, that, as you say, received some benefit from packing gas there?

A. I could not attempt to allocate it.

Q. Don't you think there should be some allocation?

A. I don't see how it could be done.

Q. You mean to say to this Commission that in your judgment that line that was built over to Delaware for Delaware and those communities should be charged as much against Columbus as against Delaware?

A. I would not know just how to prorate it.

Q. Answer my question. I am trying to get your view.

A. I know.

Q. Answer my question and then explain. I shall not cut you off.

A. I would not know how to prorate it.

Q. That is not my question. I am getting at the morals of it, what you think about it. Should there be the same charge against Columbus as against Delaware?

A. In that you have the flexibility to supply Columbus out of the system equally as well as Delaware, I do not think that there should be any discrimination between Delaware and Columbus.

1821

[fol. 2615] Q. You think that that line should be charged to Columbus as much as to Delaware?

A. Yes, sir.

By Chairman Geiger:

Q. Now, may I try to get this concretely into my mind? As I understand your testimony broadly, it is to the effect that the entire system throughout the State of Ohio, not all of it equally, but all contribute to the service to Columbus by reason of its being a reservoir in which gas can be packed and drawn upon as the peak load demands it?

A. That is right?

Q. That is right?

A. Yes, sir.

Q. Is this true, that at the same time it is furnishing a storage reservoir in which gas may be packed for peak loads for Columbus, it is likewise performing the identical same service to every consumer who is attached onto that connecting line, wherever it may be, within the limits of the State of Ohio?

A. Yes, sir.

Q. How?

A. Yes, sir.

Q. So that while the reservoir of the transmission lines is a benefit to Columbus, it is not exclusively so; it is equally a benefit to every other city that is attached onto the pipe line?

A. Yes, sir.

Q. Well then, you would not, or would you, say that the benefit of the entire amount of that reserve storage reservoir is used and useful in a hundred per cent capacity for Columbus, or is it distributed in its utility to all towns that are connected on the pipe line.

A. The entire system is, as I would picture it, used and useful in the supplying of Columbus.

Q. I know that. I have got that.

A. Although there are certain parts of the system which

1822

[fol. 2616] may be more so than other parts.

Q. Yes, I got all of that. But the entire system in your judgment is used and useful in supplying gas to Columbus. Is the entire system 100 per cent used and useful for furnishing gas to Columbus and of no utility at the same time in furnishing gas to other communities which are connected on to the pipe line?

A. The flexibility due to the storage network makes it possible to act as a protection to all markets.

Q. To all markets equally?

A. Yes, sir.

Q. According to their peak load requirements?

A. Yes, sir.

Q. Then as I understand, we arrive finally at the conclusion that that value as a storage reservoir for peak load is equally distributed over the entire territory served by the pipe line and is not solely to be alloted to Columbus or allocated to Columbus.

A. If you would look upon the——

Q. Just answer that by yes or no.

A. May I ask the gentleman to read that question.

(Question read.)

A. That is right.

Q. That is right?

A. Yes, sir.

Q. May I ask another question? Assuming that the territory of the State of Ohio covered by your pipe line is too large to have the same drain upon all localities at the same time, owing to climatic conditions, would you or would you not be able to say that, taking it altogether and averaging it up, where one community has a special peak load drain, due either to excessive cold weather or to prevalence

1823

[fol. 2617] of winds or to periods of cold days, that every other community at the same time is likely to have on the average the same drain simultaneously with Columbus?

A. No, it would not have the same drain.

Q. The same requirements? Is there any climatic condition between, we will say, Columbus and Cleveland that would make it a different drain on account of the condition of the weather?

A. Yes, sir.

Q. Relatively?

A. Yes, sir, they may have a forty mile an hour wind in Toledo, northern Ohio, when we do not have any wind at all.

Q. You do not keep records of those?

A. We keep records of our wind velocity in Columbus.

Q. As against wind velocity in Cleveland?

A. We don't have it in Cleveland.

Q. Let us take two towns a little closer together, not entirely together, but we will assume Columbus and Zanesville or Columbus and Springfield. Is there likely to be a different drain upon pipe lines in those communities at the same time, or would the drain be substantially the same?

A. It would not be substantially the same. That is governed considerably by the wealth of the community being served.

Q. By the what?

A. By the wealth, whether or not the people are able to use it as a fuel or whether or not they are able to use it as a house heating medium.

Q. Then you think in order to allocate the service of these pipe lines to the different communities we should ascertain the financial ability of each community that is using the gas?

A. I would not know how to allocate any physical proper-

1824

[fol. 2618] ties to the different communities.

Q. Would you be able to give us any line upon this problem? If we find in the course of further investigation that it is necessary or advisable or desirable for us to attempt to allocate to Columbus its proper proportion of the value of the property used and useful over the entire Ohio system, could it be done by the measure of the amount of gas consumed in Columbus as against the amount consumed over the rest of the territory?

A. It might be allocated, providing you took the total expense of the entire system and prorated it against the volume of gas used.

Q. Wouldn't the volume of gas used in Columbus be a better and more accurate measure than the mileage of the pipes and the diameter of the pipes running all over Ohio and the wind pressure and so on?

A. I am not in a very good position to talk on that intelligently, Judge Geiger.

By Mr. Butler:

Q. May I put to you the question that I put to Mr. Hightower yesterday and which I think you heard? There is a transmission line 200 miles long, one city on it, a hundred miles away, one two hundred miles away; each uses the same amount of gas; would you in any way allocate the cost of that pipe line?

A. No, sir.

Q. Divide it fifty-fifty?

A. Yes, sir, it would be divided for the utilization of supplying both markets. It could not be divided as I would see it——

Q. As I understand you in the hypothetical case it would be a fifty-fifty proposition?

A. If you only had two towns on one pipe line.

Q. That is what I am talking about just to get a principle?

1825

[fol. 2619] A. Yes.

Q. I wish you would tell me, that is, secure the information, when in 1929 and when in 1930 you received gas north from Cincinnati, that is, from the Union Gas & Electric Company?

A. Yes, sir.

Q. And under what circumstances and how much? Make a note of that please. In looking at the Logan map and trying to superimpose that upon your original map 23——

Commissioner Bricker: By the way, did we get a copy of that?

Mr. Turner: Yes, Judge Geiger had that awhile ago.

Q. And, by the way, as you will remember, the Logan was taken over by the Ohio Fuel Gas in June 1929. Now as I say, in trying to superimpose the Logan on your 23, I am confused a little because the Logan line from Sugar Grove, that is, on 23-C, ran out to Muncie?

A. Yes, sir.

Q. But on your 23 the line to Muncie is Z-50, which is the line that comes up north of Columbus and continues over to Homer?

A. Yes, sir.

Q. You have simply changed the designations since you took them over, since you combined them?

A. That is, the engineering symbols?

Q. Yes.

A. Yes, sir, the engineering symbols have been changed that time.

Q. In other words, under the Logan your A and your Z-50 beginning down there—what do you call that place?

A. Logan-Howell.

Q. (Continuing:) Logan-Howell are one and the same line.

A. The former Logan line's name for the eighteen inch

1826

[fol. 2620] line, eighteen and sixteen, that ran from Sugar Grove to Muncie, Anderson and Fairmont was known as Line E. Later that was changed to Line A.

Q. When you say later, you mean after the Ohio Fuel Gas took it?

A. Yes, sir, the lines were interconnected at the Logan-Howell Station; gases leaving Sugar Grove or Wheeler's Station were discharged through line A to the Logan-Howell Station and through the old Ohio Fuel line A, later Z-50, to Centerville. The former Ohio Fuel line A that ran between Linden and Centerville was changed to Z-50, and the former Logan line E that ran from the Logan-Howell to Muncie was changed to Z-50—or the continuation of Z-50 from Linden to Muncie. Those lines are connected by a twelve inch line at Logan-Howell station.

Q. The Chillicothe line was a Logan line?

A. Yes, sir, that line connected to the Ohio Fuel's line J between the Logan-Sugar Grove Station and the Ohio Fuel-Sugar Grove station. Gases were measured to the Logan Company, sales to the Logan Company, at the Wheeler Station. Any gases that were sold from the Logan to the Ohio Fuel were measured at the Treat Station, and any gases that were sold to Ohio Fuel markets were measured from that line, so that all gas entering the line or being discharged from the line was measured by an orifice meter.

Q. My question was that the Chillicothe line was formerly a Logan Line?

A. Formerly a Logan line.

Q. Until June 1929?

A. Yes, sir.

Q. Now, I wish you would trace out the former Logan line on your map 23, going north from Sugar Grove.

A. K-30.

1827

[fol. 2621] Q. K-30?

A. Yes, it starts with a ten inch line going 2,000 feet, K-30 and 31, swedging into K-16, and going north to Treat Station.

Q. Well then, how did the Logan proceed?

A. How do you mean, how did it proceed?

Q. From Treat Station?

A. K-30 was tied into Treat Station intake. It was also tied into Treat Station discharge. It was also tied into the north twelve inch out of Treat. So that it is possible to send gas from Wheeler Station through Sugar Grove Station through Treat Station either to Columbus or the western markets or north to Norwalk, Sandusky and other markets.

Q. Now, will you be good enough to go back and tell me from Homer north just the lines of the Logan?

A. The former Logan lines?

Chairman Geiger: Don't this plat show that?

Mr. Butler: I don't want any question about it. There may be some differences, and it is so vital to us in this matter that we want to be clear about it. If there are any differences we would like to know it.

The Witness: The line D, which is now tied into Treat Station discharge line, is a former Logan Line, Delaware line, Marion line, Bucyrus, Findlay, Fostoria, Tiffin, Carey; the line coming west from Avon Station to Norwalk; the line going north to Sandusky; and the line going to Fremont; the discharge line from Pavonia to Line D; D-100 line.

Q. Ashland and Mansfield were on the line, weren't they?

A. Yes, sir.

Q. And also up north, Elyria and Lorain?

A. There are a good many smaller towns, Mr. Butler,

1828

[fol. 2622] that are not named on this map that are on that system.

Q. I am trying to get the larger ones. Do you mean to tell me that for and during the years prior to the middle of 1929 you managed those transmission lines shown on your 23, which include the old Ohio Fuel Gas and the old Logan, in such way that you did not know the difference between what was the Logan and what was the Ohio Fuel Gas?

A. I didn't say that, I don't believe, Mr. Butler.

Q. I am trying to find out. I thought you did say it. But I want to be fair with you.

A. I think I know what was the property of the Logan Company and what was the property of the Ohio Fuel.

Q. Did the two systems operate as separate systems?

A. At any points the gas was exchanged a measurement was made. Numerous connections were made in the system. Where the Ohio Fuel may have had a surplus of gas that gas was delivered to the Logan.

By Chairman Geiger:

Q. I am not talking after the two were combined.

A. This was previous to their combination.

Q. But before they were combined?

A. Previous to there being combined any connections made, the gas was all measured.

Q. But the Logan Gas system was built primarily to serve the territory that is shown on your exhibit 23-C?

A. Yes, sir.

Q. And the Ohio Fuel was built primarily to serve the territory that is shown on 23, if you took from it that which is shown on 23-C?

A. Yes, sir.

Q. All right; and they were operated as separate systems up until what time?

A. I took charge of the Logan pressure department in

1829

[fol. 2623] September, 1927. At that time there were many connections made in the field.

Q. We are not talking about the connections. We are talking about separate entities as companies. When were they joined together?

A. I could not say when the book values or anything like that were joined together.

Mr. Turner: He was trying to answer you. He said he took charge of them in 1927. He has always worked for the Ohio.

Chairman Geiger: We understand his connections. He stated that numbers of times.

Mr. Turner: Then I cannot see the point to your question.

By Mr. Butler:

Q. When did you begin to operate those properties as a complete unit?

A. September, 1927.

Q. And from that time on did not distinguish between the ownerships?

A. We did. We measured all gases that were exchanged.

Q. But when did you cease to do that and disregard what came from the Logan to the Ohio Fuel or from the Ohio Fuel to the Logan?

A. I don't have charge of the measurements, Mr. Butler. I presume it occurred in June, 1930, or whenever the company was officially transferred.

Chairman Geiger: Assuming that it occurred in June, 1930——

Mr. Turner: It is '29, if your Honor please.

Chairman Geiger: He said '30.

Mr. Turner: That was his assumption, but the date is '29.

Chairman Geiger: Well, is the date certain at which we are trying to fix the value a day subsequent to June, 1929?

Mr. Turner: Yes, sir.

1830

[fol. 2624] Chairman Geiger: December, 1929.

Mr. Turner: Yes.

Chairman Geiger: So that they were unified at that time?

Mr. Turner: Yes, they were unified at that time.

Q. When did you take charge of T-50 and T-10, running from Wheeler up to Toledo and belonging to the Northwestern?

A. I think I told you this morning, if I recall correctly, Mr. Butler, it was about seven or eight years ago.

Q. Well, did you operate that as a separate unit?

A. All gases were measured. We just controlled the pressures.

Q. Really don't you think that with your experience you can tell this Commission whether you operated T-50 and T-10 for a certain period in there as the property of the Northwestern? You either did or you did not, from your point of view?

A. I operated it through the cooperation of the Pressure Department of the Northwestern Gas Company at Toledo.

Q. Oh well then, they were your superiors in that respect for those two lines?

A. You might say that.

Q. I am not saying it. I want you to say it if it be true.

A. I was never notified they were my superiors. I don't believe they were ever notified that I was their superior.

Q. Did you take orders from them or did they take orders from you?

A. They requested and we tried to abide by their requests.

Q. Now, when did you cease operating that as a separate unit and begin to operate it as a unit of the Ohio Fuel Gas?

A. I can't give you the exact date, Mr. Butler.

Q. Do you know the year?

A. I believe Mr. Seyffert would be in a better position to answer that than I would.

1831

[fol. 2625] Q. He will have trouble of his own. All right, if you don't know.

(No reply.)

By Chairman Geiger:

Q. May I ask this right at that point? When the Logan and Ohio Fuel were separate entities and before they had been joined legally in June, 1929, did they get their gas from the same source or from different sources?

A. From different sources.

Q. Except as they might each interchange gas with the other?

A. Yes, sir.

Chairman Geiger: All right.

By Mr. Butler:

Q. Well, you knew that the Northwestern Ohio Natural Gas Company up to the time that the Ohio Fuel Gas took it over got the great proportion of its gas at Sugar Grove or Wheeler, didn't you?

A. Yes, sir.

Q. Where did the Ohio Fuel Gas deliver gas to the Northwestern prior to the time that these two lines were taken over by the Ohio Fuel Gas Company?

A. They delivered gas—I don't know the exact date when this was taken over, Mr. Butler.

Q. Well, it was about the middle of 1929, as I remember it.

A. The Northwestern received gas from the Ohio Fuel at Wheeler's Station; if it was previous to the time the Ohio Fuel took over the Logan, the Northwestern received gas from the Logan Company out of Pavonia Station; if it was after the Ohio Fuel took over the Logan, the Northwestern received gas from the Ohio Fuel at Pavonia Station.

Q. To make it clear, 1928; that was before either the Logan or these two pipe lines were taken by the Ohio Fuel Gas.

A. Where did the Northwestern receive its gas from the Ohio Fuel?

1832

[fol. 2626] Q. Yes, where was it metered to them?

A. It was metered to them at Line B near New Albany. It was metered to them at Sugar Grove. That is the only two points I recall at the present time.

Q. Well, didn't you deliver quite a bit to them away near Maumee, from D-100?

A. You said the Ohio Fuel in 1928, did you not?

Q. D-100 is not marked as Logan, is it?

Mr. Huffman: That is right. D-100 is Ohio Fuel.

Q. Is that a late construction?

A. No, it is not. It has been in several years.

Q. Isn't that the point where the great amount of gas was received?

A. I don't remember just the exchange of gas there, Mr. Butler, whether the Logan sold to the Ohio Fuel and the Ohio Fuel sold to the Northwestern, or whether the Ohio Fuel made a delivery direct to the Northwestern at that point; but I know there were gases delivered to the Northwestern from Pavonia Station through Line D-100.

Q. I just want you to get that for me; your records will show what they are. The Northwestern Ohio Natural Gas Company reports for 1928 show that it purchased from the Ohio Fuel Gas Company 1,815,898 thousand cubic feet. Now, I want to inquire where your Ohio Fuel Gas Company delivered that, the place and the amount. I want to

see how much of it got in away down south and how much was up north.

Mr. Calland: What are the figures?

Mr. Butler: 1,815,898 thousand—no, I am glad you called my attention to that—1,815,898,000 cu. ft. They both mean the same, I guess.

1833

[fol. 2627] Q. Now, under their statement of gas sold to other companies—I find no mention of gas sold to The Ohio Fuel Gas Company. I do find a reference to some gas, not a large amount, sold to The Logan Gas Company.

A. That was delivered at Findlay, I believe.

Q. Now, it don't say here. Possibly at Findlay. I don't know. But I do not find any sold to The Ohio Fuel Gas Company. Now, get into that. Let us see what the facts are, an analysis of those.

A. You want the towns, Ohio Fuel towns, that may be along the Northwestern line, where the Northwestern would sell gas back to The Ohio Fuel?

Q. No, sir. As far as I know, as far as the Northwestern report shows, the Ohio Fuel Gas purchased no gas from the Northwestern in that year, but the Northwestern purchased a very large amount from the Ohio Fuel Gas. Now, I want to know the places where that gas was delivered to the Northwestern and the amounts, respective amounts?

A. In the year 1928?

Q. Yes.

A. I could give you the approximate place it is delivered at the present time.

Q. No, I am asking about '28.

A. Well, I can tell you about '28.

Q. Well, if you have any information——

A. It had to come from two points. It had to come from Pavonia Station or it had to be delivered from Wheeler's Station. Now, if you want the proportion the year before delivered from each station I will have to get that.

1834

[fol. 2628] Q. That is not where it was metered to them?

A. I think it was.

Q. How in the world would you meter from Pavonia gas to the Northwestern, how would you meter it at Pavonia?

A. I don't remember just the circumstances there, Mr. Butler. I would have to give that a little thought and refer

back to records to check that accurately.

Q. You say there are a lot of interconnections?

A. I don't remember when the Ohio Fuel took over the transmission system of the Northwestern. I don't know just when that was.

Q. And I don't care. I am telling you that this is for 1928, before the Ohio Fuel Gas took over the Northwestern?

A. All right, at Wheeler then. If the Northwestern Company owned the transmission system between Wheeler and Lime City and Miller crossover in 1928, the Ohio Fuel sold them the gas at Wheeler.

Q. Do you mean to tell me that that D-100 running from Pavonia up almost to Maumee and connecting up with both T-50 and T-10, almost at the edge of Toledo or Maumee, that gas would not be delivered there or was not delivered there to the Northwestern?

A. It certainly was delivered to the Northwestern, but where the measurement was at that time, Mr. Butler, is the question.

Q. How in the name of God could you meter the amount that the Northwestern got at Wheeler and then send it up through and deliver it up there to their lines at Maumee without further measuring it?

A. If it was their transmission line they would stand the loss on it.

Q. But it is mingled with all other gases.

1835

[fol. 2629] Mr. Turner: You are just all wet.

Mr. Butler: I know I am all wet.

The Witness: What other gases do you refer to?

Q. How would you get it out of Wheeler? What line would you use?

A. T and T-50.

Q. Yes, but I just asked you a moment ago whether you did not deliver gas from D-100 up south of Maumee?

A. Yes, sir, we do.

Q. Where is that measured?

A. I can't tell you where it was measured in '28.

Q. Find it for me.

A. Yes, sir, I can do that.

Q. Find it. That is what I am asking you to do.

A. All right.

Mr. Turner: Mr. Butler, will you permit me to make a suggestion to you, that at the time you were inquiring about I think that the line T-50 delivered, and if you would ask that question, you would find T-50 delivered to the Northwestern and also T-10.

Mr. Butler: My heavens, that is what I am talking about.

Mr. Turner: You haven't asked that question.

Mr. Butler: Yes, I have. I told him two or three times to assume that in 1928 the Ohio Fuel Gas had not taken over T-50 and T-10. That is the basis of the whole question.

The Witness: I think I told you that if it was Northwestern property the measurement would have been at Wheeler and that the Northwestern would stand the leakage on their own line.

Q. How could you measure gas at Wheeler if you delivered gas through D-100?

A. You could measure the T-50 gas going towards

1836

[fol. 2630] Toledo, couldn't you, Mr. Butler?

Q. I am talking about D-100.

A. You could measure that at Pavonia the same as you measure the T and T-50 gas at Wheeler.

Q. How would you measure it at Pavonia when other distributions were furnished out of D-100?

A. It could be approximate- in two different ways. If the distribution plants served by D-100 were Ohio Fuel plants, the Northwestern could bill the Ohio Fuel for that volume of gas delivered off of D-100 to their system. That also could be the gas of a master measuring meter at Pavonia where the Ohio Fuel would sell to the Northwestern Company.

Q. Well, did they do it?

A. I will have to look that up.

Q. That is exactly what I want you to do.

A. I don't recall in 1928 the status of D-100.

Q. R-300 brings in Kentucky gas.

A. I don't know whether it is Kentucky or West Virginia gas.

Q. I don't care.

A. As long as it is good gas.

Q. All right, when did that go into operation?

A. I believe about December 1st, 1929.

Q. Will you find out sure just when it did?

A. You want the date of the first delivery of gas through that line?

Q. As I recall, Mr. Phillips, there was testimony about the pressure at the Columbus city gates. As I recall—you will correct me if I am wrong—you first said it was not below 50 and then you said possibly on peak days it was below fifty. And we wanted you to produce for us those pressure charts or a tabulation of them, so that we might have these variations in pressure at the city gates.

1837

[fol. 2631] A. I think at that time, Mr. Butler, you requested that I furnish you that record, and I found that we had indicating gauges on our belt line rather than recording gauges. I though possibly at one point we had a recording gauge, but I found later we did not have a recording gauge on our outer belt line. The indicating gauge, of course, would give no permanent record. So it would be a difficult job to give you a summary of the exact pressure on the outer belt of Columbus. I think that Mr. Strickler did produce the medium pressure charts or the charts representative of the medium pressure in the city, which showed very clearly the necessity of using the gas holder during various periods.

Q. You know I am not asking you about medium pressure nor am I wanting to open up the gas holder. We have quite enough for one day if we stick to it. But I am now trying to find out what the pressure outside was at the point of delivery at the city gates, which, as I remember, you testified as probably being not below fifty pounds, and then as I remember you corrected yourself?

A. Yes, sir.

Q. And I should like to have that check.

A. I don't know just how we can check it, because the orifice measurements into Columbus are not measured at belt line pressures. The indicating gauge gives no record—it is just a spring gauge, and I do not know of an accurate record that I could compile and submit to you. The only thing I might prepare is an estimate.

Q. How do you testify as to the pressure?

A. We have an attendant who visits those stations frequently to make pressure changes. Before he makes a pressure change he calls our office, advising us as to the

1838

[fol. 2632] indicating gauge pressure on the belt line proper. In that way we are able to govern the operation of our system relative to the supplying of Columbus and the immediate vicinity.

Q. But there is no record kept of that?

A. No, sir, not to my knowledge.

Q. And that is as nearly as you can come to any written or recorded indication of the pressure?

A. I think it is, Mr. Butler. We have a barometer that we shoot up, trying to maintain a certain pressure in the belt line in the vicinity of Columbus. However, at periods of extreme demand and when our mechanical equipment may go down on us—those things are bound to slip occasionally—the flexibility of the pipe lines makes it possible to hold the markets when the pipe lines are shut off or the compressor station shut down.

Q. When you pack your pipe lines what record is there of the pressures in those lines?

A. We have got points in our system that we keep pressure records for.

Q. What points?

A. We have a record of our major compressor stations, discharges or intakes. We have a pressure record of Linden. However, we do not have a complete pressure record of the pressure throughout the system. We have no telephone communication, that is, only by long distance. At some points in the system we do have recording charts, not at all points.

Q. When do you determine or how do you determine when you have packed that line over to Indiana to the point where it might burst? What method have you——

A. I have contact with the foremen of that line continuously. I know how many leaks are being developed, how

1839

[fol. 2633] many leaks are repaired. I make it my business to inquire as to the physical condition of all the lines, and that is part of my duty, to know what a pipe line will stand, what we can pack it to. And we do not pack it at extremely high dangerous pressures, because it is very dangerous to lose a main artery on a cold day.

Q. That is interesting. How high do you go?

A. It depends on the line, Mr. Butler.

Q. I don't care what it depends upon.

A. That is the big factor.

Q. Take your Indiana line now. What is your packing pressure there?

A. 175 to 200 pounds.

Q. What record do you keep of that? Any?

A. We have a pressure here on some of our lines, discharge pressures——

Q. I am talking about that line.

A. I know what the discharge pressure leaving that station is, how long it will take to pack it and what the term of pressure will be.

Chairman Geiger: I think, Mr. Phillips, we might get along a little faster if you observed more closely the question he asks and answer his question and don't say any more please. He will bring it out.

Mr. Turner: I submit that that question was answered as asked.

Chairman Geiger: I don't think it was.

Mr. Turner: May I preserve my part of the proceeding by observing that it was?

Chairman Geiger: Certainly.

Mr. Turner: Thank you.

Chairman Geiger: I think he went far afield from an an- 1840

[fol. 2634] swer to the question.

Commissioner Bricker: Now, we have been getting along pretty well all day, gentlemen.

Mr. Butler: Yes, it is almost the end of a perfect day.

Mr. Turner: You just woke up at the wrong time, Judge.

Chairman Geiger: I do not get that insinuation that I have not been awake all of the time.

Q. Your 23-A and your 23-B are analyses for the year 1929. Now, your map relates to two days, January 23rd, 1930, and January 13th, 1929. Now, let us have the analysis for those respective days.

A. I think it is pretty well shown on the map, Mr. Butler. It shows the comparison between the two years as to the production in the fields, deliveries from West Virginia, the deliveries to the various markets, and the estimate of the deliveries; and I do not know how I could further qualify the deliveries on the two different days by the arrows. The arrows of one year may not fit another year. And possibly the arrows themselves are inaccurate. But in so far as the

production of the available sources of supply this is shown on the map.

Q. I didn't ask you to tell me why you should not do it. I was asking you to do it. And I think if you will do that, it will go very, very far in preventing any misunderstanding of your testimony.

A. Do you want me to go through the process of reading the deliveries from the various stations as of January 13th, 1929, or did you want me——

Q. Throw them into exhibits, substantially like what you made for the whole year of 1929. That is what I am asking.

1841

[fol. 2635] Mr. Turner: Can't that be done by you, Mr. Butler?

Mr. Butler: That is his business.

Mr. Turner: No, it is not his business, at all. You want it?

Mr. Butler: Yes, I want it.

Mr. Turner: You have got the data.

Mr. Butler: You know, Mr. Turner, the witness has taken a lot of time explaining what he said.

Mr. Turner: The witness has taken a lot of time—oh boy!

Mr. Butler: I don't think I can do any more today.

Chairman Geiger: May I ask a question or two? You have shown a map here, 23, I think.

Commissioner Bricker: Yes, Exhibit 23, A, B, and C.

By Chairman Geiger:

Q. You have shown a map here, 23, which shows the deliveries through the various pipe lines as you estimate them to have been for the two days of January 13th, 1929 and January 23rd, 1930; is that correct?

A. Yes, sir.

Q. You have shown also in the draft that you have exhibited, the map rather, that which was delivered for industrial purposes and that which was delivered for domestic purposes?

A. No, only in a few instances, Judge Geiger.

Q. That is all right. Never mind any more. You have it—only in a few instances. May I ask you whether you recall on those two days which you have taken whether there was any dearth of gas or whether there was a suffi-

cient amount of gas for both industrial and domestic purposes.

A. If I remember correctly during 1929 we did request a few of our industrial plants not to start any additional

1842

[fol. 2636] kilns or furnaces until after the extreme zero spell had left us. I don't recall that we did by the order of the Commission shut off any industrial plants. However, I don't remember very clearly on that. But there was——

Q. It is safe then to say that on those two days, one the coldest day of 1929, and one the coldest day of 1930, that you had a sufficient supply for both industrial and domestic purposes?

A. I don't recall any shortages to have existed, but it is rather far back, Judge Geiger, and I can't remember.

1845

Q. You know yesterday, Mr. Phillips, I had you tell me the amounts of Ohio gas produced, on January 23rd, 1930, and you will remember that I divided the Ohio territory into three fields; up to Wheeler, first, and then from there up to and including Brown, and then from there the remainder; now I wish you would give me the amounts of the Ohio gas from those three respective fields for the year 1929, for the whole year; I realize you have to prepare that.

A. I doubt very much Mr. Butler, if we could give you an exact figure on that. It would be an estimate, because all of

1846

[fol. 2637] our own production is not measured and you could not say because you purchase a certain volume of gas at the well that we deliver that identical same volume to market. The same condition exists with West Virginia gases, that you may purchase so much from the United Fuel or other West Virginia companies, and you do not deliver all of that gas and collect revenue for it.

Q. You run ahead and you think I mean something that I do not; I am not trying to entrap you.

Chairman Geiger: Mr. Phillips, may I just mildly suggest that you answer his question in the fewest possible number of words and stop, and if he wants anything more along the line he will ask another question? If you do not know anything, say you do not know, and your counsel then can bring out any elaboration he wishes to.

Q. What I want is production; I don't care what became of the production; I want production.

A. I will make an effort, Mr. Butler.

Mr. Turner: Put that down in "production"; underscore "production"; that is what he is asking for.

Q. Yesterday I think I became confused, and that is my weakness and not yours, but I understood you to say that at the Wheeler Station you measured the gas going out over T-50 and T-10?

A. We did at one time, we do not at present.

Q. Well, when the Northwestern owned T-50 and T-10 that was done?

A. Yes, sir.

Q. Well, how did you manage that; you spoke of that several times yesterday; I got the impression the other day that you could not measure gas going out of your compressing stations?

A. You cannot measure it close to a compressor station

1847

[fol. 2638] due to the pulsation of the piston; however, if you insert straightening veins, pulsation baffles and other equipment to eliminate the pulsation from the compressor unit, and your measuring station is located far enough away from the compressor station, it is possible to secure a measurment by orifice meter.

Chairman Geiger: Now, if I may illustrate what I mean; he asked you something that you could have said "We do not have any measurement", but instead of that you give us a nice lecture on pulsation veins and other things. Now please don't do that.

The Witness: Well, Mr. Geiger——

Mr. Turner: Well, counsel for the Company thinks that the answer was responsive and explanatory of the question asked.

Chairman Geiger: Well, there is too much of it.

Mr. Turner: Well, we can't help it; we will be scolded if we don't, and—— .

Chairman Geiger: If anybody expects us to read this record, let us keep it down.

Mr. Turner: I thought you were going to listen to it.

Chairman Geiger: Well, if any mortal man can remember it month after month he can do better than I can.

Mr. Turner: Well, I have all of our testimony here in a little book, and it is all there.

Chairman Geiger: All right, pardon me for the interruption; go ahead—all right—pardon me.

By Mr. Butler:

Q. Well, do you now measure at Wheeler the gas that goes over T-50 and T-10?

1848

[fol. 2639] A. I could not say. Mr. Butler; I am not in the meter department; I know, however, that that is not the basis of measurement to the Northwestern Company. It may be a line check measuring unit, I do not know.

Q. Well, where did you get these figures on this map 23 illustrating the amount of gas that went north on T-50 and T-10 on January 23rd, 1930, and January 13th, 1929?

A. I estimated those figures, as I told you yesterday.

Q. Well, from what did you estimate them?

A. I used my judgment as to the compressor displacement; the difference in pressures between initial and terminal points; and other factors; it is my best judgment.

Q. Well, what other factors? Don't you realize this is a serious matter?

A. Yes, sir, I do.

Q. That we are talking about?

A. Yes, sir.

Q. Well, what other factors?

A. The rate of speed of your engine; your intake; the mechanical efficiency of your engine; the variation in pressure in a 24 hour interval, and——

Q. Well, where does The Ohio Fuel Gas Company meter and measure the gas that it now sends to the Northwestern at Toledo?

A. It measure- it at Lime City and the Miller cross-over. These measuring stations are known as T, T-50 and D-100 measuring stations.

Q. Where is the first one located?

A. They are right south of Maumee.

Q. Well, on what line is it located?

A. The lines intersect, if you will note from the Map.

Q. D-100 you mean intersects T-10 and T-50?

A. Yes, sir, they are tied together.

Q. Where is this first metering station?

A. It would depend on the direction, if you speak of the

1849

[fol. 2640] T-50 measuring station, if it be at the point T-50 and D-100 connected, it would be at that point; the T and D-100 measuring station is at the point that D-100 ties into line T; and the D-100 measuring station is slightly west, almost in the same building.

Q. Take T-50——

A. That is the east line.

Q. Where do you measure the gas that is carried to Toledo through T-50?

A. At the D-100 T-50 connection.

Q. That measures both of them?

A. It would measure any gas that would be delivered out of D-100 into T-50 going north. It also would measure the gas being delivered from Wheeler through D-50 to that point. Now, if I might take a minute——

Mr. Turner: No, no, we have been scolded about that; now don't do it.

Q. Well, in other words, if I wanted to know how much gas went to the Northwestern over T-50 and D-100, there is a measuring station where the two join and that would give me that?

A. Not exactly that, no sir. If I might take a minute to say why——

Q. Yes.

A. Because you have two regulators set at that point; you have a regulator feeding out of T-50 going north and also have a regulator feeding out of D-100 going north; they are set at identically the same pressure, so that the measuring unit which would be on the outlet side of the two regulators would not tell you that all of the gas came from T-50 or D-100, or what part came from each of the respective lines.

Q. Well, are they measured out of the outgoing side?

1850

[fol. 2641] A. Yes.

Q. Of the regulator?

A. Yes, sir.

Q. Well, the other day you said you could not do it because of the pulsation?

A. Not in the regulator.

Q. Well, these are mere regulators?

A. Yes, sir.

Q. So with regulators there is no difficulty about that, after you cut down the pressure?

A. You don't necessarily have to cut down the pressure, but in that particular instance you have.

Q. So you take the two—or is there one over on D-100 and one on T-50—a regulator on each?

A. Yes, sir.

Q. And the regulator—the meter on the regulator on T-50 would show how much gas goes through there?

A. There is no meter on the regulator, Mr. Butler.

Q. Where is the meter?

A. It is on the outlet of both regulators.

Q. Well, you are too deep for me, I can see that; my education is not sufficient. The meter simply picks up the production of the two lines?

A. Yes, sir.

Q. Then you have no way of telling how much came through T-50 and how much through D-100?

A. No, sir.

Q. Well, in the old days before the middle of 1929, when the Northwestern owned T-50 and T-10, how was it managed then?

A. It was measured at Crawfis Station on T and T-50 which is several miles north of Wheeler Station.

Q. Just several miles north; do you know how far?

A. I would say less than ten miles.

Q. Well, has that measuring station been taken out?

A. I cannot say.

1851

[fol. 2642] Q. You say the gas on D-100 and T-50 are kept at the same pressure?

A. They are commingled, yes, sir.

Q. Well, you were speaking about the same pressure?

A. They don't have to be kept at the same pressure; the outlet pressure on the regulator can be adjusted so that they are both discharging gas into T-50 going north; but the intake, or the inlet into the regulator does not necessarily have to be the same.

Q. No attempt to carry that the same?

A. No, sir.

Q. Well, that is what I am getting at. Now where do you meter your gas out of T-10 for the Northwestern?

A. At the intersection of T and D-100.

Q. So those two measuring stations there show you at all times what The Ohio Fuel Gas Company delivers to the Northwestern?

A. Yes, sir, providing you consider the D-100 measuring station.

Q. Well, I understood these measuring stations there were combined, one that took care of D-100 and T-50?

A. You have a 16 inch line leading from the Northwestern out of that intersection; there is a measuring unit on that line; there is a measuring unit on the T line going north, and there is a measuring unit on the T-50 line.

Q. D-100?

A. T-50.

Q. You can give me the total amount of gas that the Ohio Fuel delivered on January 23rd, 1930, to the Northwestern at Toledo?

A. I have that figure being typed at the present time, Mr. Butler.

Q. I know, but I am—how many measuring stations do you have to read to determine that?

A. Approximately——

1852

[fol. 2643] Q. Oh, not approximately; how many metering stations or measuring stations do you read to determine that?

A. Three measuring station records, providing you want the delivery from the Ohio Fuel to the Northwestern Company at that point.

Q. My dear sir, I told you that I wanted to know how much gas The Ohio Fuel Gas Company delivered to Toledo, the Northwestern, on that January 23rd, 1930, and to make it more detailed, it would be all gas that came over one or more of the three lines, D-100 and T-50 and T-10.

Mr. Turner: The witness told you several times that he is not in the measuring department, but he will get the data for you.

Mr. Butler: Well, then what are you kicking about? He has tried to explain this and brought the map here.

Mr. Turner: There are 14 or 15 of those you have asked——

Mr. Butler: Oh, no, the witness is just helpless.

Mr. Turner: Oh, that is a ridiculous statement; you are the one that is helpless; you have asked about those measuring stations at least four or five times this morning and he has described each one of them. Pretty soon he will be qualified as a geologist instead of a pressure man.

Mr. Butler: Well, you are the man——

Mr. Turner: I brought him here as a pressure man.

Mr. Butler: Oh, did you? You brought his map, didn't you?

Mr. Turner: I brought his map and brought him as a pressure man.

1853

[fol. 2644] Mr. Butler: Oh, well, all right.

By Mr. Butler:

Q. Now let me put it this way; on January 23rd, 1930, the Northwestern at Toledo received gas from the Ohio Fuel over D-100, T-50 and T-10?

A. Yes, sir.

Q. Now, to determine that amount at the end of that day how many measuring stations will you have examined?

A. Three.

Q. Just three?

(No reply.)

Q. One that measures D-100?

A. A part of D-100.

Q. One that measures the whole of T-50?

A. No, sir, it would be intermingled with D-100 gas.

Q. And one that measures the whole of T-10?

A. No, sir, it would be intermingled with D-100 gas.

Q. And also with T-50 gas?

A. I just answered that question before, Mr. Butler; T-50 and D-100 gas are intermingled and the measurement is on the outlet side after the gases have been mixed.

Q. D-100 and T-50?

A. Yes.

Q. That gives the total of those two?

A. No, it does not give the total of those two; it gives a part of the D-100 gas that has been delivered into T-50, and T-50 gas, and it does not tell you the proportion of each.

Q. I am trying to get the total, my dear fellow.

Chairman Geiger: May I just ask a question? Is the Northwestern altogether confined to Toledo? Is that the——

The Witness: No, sir, they serve a few towns south of Toledo.

Chairman Geiger: All right, go ahead.

By Mr. Butler:

Q. Now, I will tell you, I will not trouble you any more, 1854 [fol. 2645] but you just make me a little page exhibit showing on those two days the amount of gas that The Ohio Fuel Gas Company delivered to the Northwestern.

A. January 13th, 1929——

Q. And January 23rd, 1930.

A. The measurement between those two different days would be at different points.

Q. Oh, well, I don't care; you work it out, I will take it your way; you do that, because obviously you and I are distressing one of my very dear friends.

(No reply.)

Q. Who is the man in the meter or measuring department that would know all about this?

A. J. H. Lang is the superintendent of the measurement.

Q. Anybody else who ought to be called to give the facts, or in your judgment is he the man who has possession of those facts?

A. C. C. Phillips is the manager of transmission; the measurement department is one of the departments under his supervision.

Q. Who is C. C. Phillips?

A. A brother of mine.

Q. Now in one of your answers you told me that all of the Sugar Grove gas went into Wheeler?

A. Yes, sir.

Q. The map seems a little contradictory of that; for example, take your Chillicothe line, that seems to run over to Sugar Grove.

A. I might explain that, Mr. Butler; Sugar Grove discharges all of its gas to Wheeler; the ten inch line that connects between Wheeler and Sugar Grove is discharging

gas from Wheeler station north through the J line into K-30, or it can be used as an intake, and is used for both purposes. Chillicothe is connected to that J ten inch line.

Q. And does not go into the Sugar Grove line or sta-

1855

[fol. 2646] tion at all?

A. It is in the Sugar Grove lot where the connection is.

Q. Yes, but, in other words, your original statement is absolutely correct, that all of the Sugar Grove gas first goes into Wheeler before it is distributed?

A. Yes, sir.

Q. That is what disturbed us a little bit in trying to figure out the map.

(No reply.)

Q. Do you know to what extent the lines, the three lines leading into West Virginia or Kentucky and going up to Sugar Grove and Wheeler, are packed at night?

A. Yes, sir.

Q. What pressures do you reach on those lines?

A. On the line E and E-60, which transports gas between Ravenswood and Wheeler, that line is packed as high as 225 at Wheeler; 275 at the Ohio River; in the day time in the colder days that line is delivering gas at approximately 250 at the River and 75 to 100 pounds at Wheeler.

Q. Well now, the Connecting Gas Company running to Kennedy, what pressure?

A. That line is not packed to any great extent; that line will operate between 75 and 125 pounds.

Q. Do you mean that it is a line so constructed that you cannot risk packing?

A. That line is not the property of The Ohio Fuel Gas Company.

Q. I know that, but the Columbia owns a part of the stock of that company; you know that?

A. I do not know.

Chairman Geiger: At what pressure do you regard the pipe as being packed, or beginning to be packed?

The Witness: The normal pressure possibly would be 125 to 150 pounds; that would be the average working pressure of the line; a packed pressure would be 225 pounds.

1856

[fol. 2647] Chairman Geiger: About 100 pounds in addition to the normal?

The Witness: Yes, sir.

By Mr. Butler:

Q. Well, the line down to Kenova, how greatly do you pack that?

A. That line is maintained at about 350 at the River during a packed condition, and 225 at Wheeler.

2698

[fol. 2648] C. I. Weaver further testified on cross-examination:

The Witness: Well, what Mr. Butler is asking here is does the distance enter: I assume he means from the field or from the river, or from Columbus; it is the distance of transmitting gas from its source; he asks if that enters into the cost—no, that is not what he asked; he asked if that entered into the price that we charge our customers for gas service; is that correct, Mr. Butler?

By Mr. Butler:

Q. Well, you are getting at the basis of it.

A. Well, the thing that I wanted to make clear to you is this; I think that is what you want to know from me. In one instance we transport gas from West Virginia to Customer "A", located in the southern part of the State; in another case we transport gas from West Virginia to Customer "B", in the northern part of the State, do we make any difference in the price we charge those customers for industrial gas; and the answer is "No."

The distance certainly does enter into the cost of transporting that gas but tomorrow the gas may be transported in an entirely different direction and the only practical thing to do, in our judgment, on industrial rates, where this matter of transportation and distance is less per unit, is to make the industrial rates uniform by classes; in other words, the rate in one particular city may not be absolutely accurate; the rate in the other city may not be ab-

2699

[fol. 2649] solutely accurate; but the two of them together represent our best judgment as to an average.

Mr. Weaver, you understand your own line and your own system and I need not detail that; I again put this simple question to you; "A" and "B" are in the same manufacing business; they have factories alike; they operate the same way; they use the same amount of gas, and the times when they use the gas are the same; one is down close to the Ohio River and one is near the edge of Western Ohio, near Indiana; now you say that is entirely proper for your Ohio Fuel Gas Company to charge the one nearer the Ohio River the same price that you charge the one near the Indiana line, and that you do do it that way?

A. We do do it that way. I want to strike out the words "entirely proper"; that means a laboratory micrometer measurement, and I object to that in there, because that is not so, as I have explained; but if you will let me substitute there "commercially practical and sensible", and whether we do it or not, the answer is "Yes".

How we do make—well, I think I have covered that.

Q. And on the same theory, if you extended your line to Detroit for industrial purposes, would you furnish it at Detroit at the same price that you would near the Ohio River?

A. I know just about as much about that as you do, what price we would make in Detroit; I don't know.

Q. Well, to me it looks perfectly preposterous for you to say that you will carry gas to Detroit and sell it to an industrial user at the same price that you would give to a man in Southern Ohio; but I am not a witness and I am not an expert and I am trying to get your views?

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[fol. 2650] A. I don't know what we would do in Detroit.

Q. Well, your conception of rates, though; I am trying to get at the bottom of it.

A. I have given you my thought in it, and I think pretty completely, as near as I can, Mr. Butler.

Q. Well, all right.

Commissioner Geiger: The long and short of it is that you do as a matter of fact charge an industrial consumer in the southern part of the State the same rate for the same class of industry as you do to one in the northern part of the State?

The Witness: Yes, sir, and for the reason that the gas field shift all the time and gas runs both ways in a pipe, and it is impossible to allocate these charges to the consumer in the south and the one in the north and ever get anywhere with a practical thing that a man can run his business on. I don't say that is theoretically perfect; it is not; and we all know it; but it is practical and sensible.

Commissioner Geiger: And you do that for the reason that you cannot tell from what source your gas comes which actually gets finally into the burners of the consumer, and you assume that by reason of the diversified pipe line and flow of gas and the different location of the wells, that for practical purposes the northern consumer can be sold as cheaply as the southern consumer, or at the same price?

The Witness: It is the same thing enlarged as your distribution system in Columbus; for the practical reasons we do not make a distinction between a consumer in the northern and southern part of Columbus, and for the same rea-

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[fol. 2651] son we do not make a distinction in industrial consumers between the northern part of our Ohio Fuel Gas system and the southern part. It must be considered all as one, in our judgment.

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[fol. 2652] F. W. PHILLIPS, recalled for further cross-examination, having been heretofore duly sworn, continued his testimony as follows:

Cross-examined by Mr. Butler:

Q. Mr. Phillips, in the order in which you have things for us, please give them to us and after we have exhausted them we will proceed further.

A. What have you on your pad that I am supposed to furnish, Mr. Butler?

Q. Well, I could retort by asking you what you took on your tablet, because you took it down. I have a number of things. The first thing I have is, Amount of gas used between Wheeler and Columbus, etc.; next, The amount of gas sent to Cincinnati January 23rd, 1930; another note, Figures in Chillicothe line showing help to Columbus; In the matter of production on January 23rd, 1930, etc. It

does not matter in what order you produce them, Mr. Phillips.

A. All right.

The first question was "What was the total production of The Ohio Fuel Gas Company in 1929?

The answer is, The total production of The Ohio Fuel Gas Company during the year 1929, which includes production of the Logan Company from June 1st, 1929, to January 1st, 1930, was 23,693,445,000 cubic feet. The production of the Logan Company prior to June 1st, 1929, is not included

2762

[fol. 2653] in the above total. The above figures do not truly represent the total production in that the loss from leakage on West Virginia purchases and Ohio Independent producers purchases is all debited against Ohio Fuel production.

The next question that was asked——

Q. Just a moment. Now, I have no capacity to follow that and I am only of average ability, but these figures do not mean anything unless they are put in a shape where I can get them and look at them.

Mr. Turner: I do not see any objection to having them. I would rather have him read it in if he will go so we can all get it. Now put the brakes on, Mr. Phillips for Heaven's sake.

Commissioner Geiger: Is there any particular reason why it should go in the record?

Mr. Turner: Oh, yes, we want it all in the record.

The Witness: The next question that was asked was: "What was the delivery by The Ohio Fuel Gas Company to the Northwestern Company on January 13th, 1929?"

The answer is: The delivery to the Northwestern Company on January 13th, 1929, from Wheeler and Pavonia Stations was 40,468,000 cubic feet.

The next question was: "What was the delivery to the Northwestern Company on January 23rd, 1930?"

The answer is: The delivery to the Northwestern Company at measuring stations on the outlet side of the point where T, T-50, and D-100 gases are intermingled on January 23rd, 1930, was 35,991,000 cubic feet.

The next question is: "How much storage can be packed

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[fol. 2654] into Line C, Chillicothe eight inch?"

The answer to that question is: The difference in storage capacity between Line C at 100 pounds and at 200 pounds is approximately 389,000 cubic feet. This line at 100 pounds storage pressure represents a volume of 446,000 cubic feet and at 200 pounds 835,000 cubic feet.

The next question was: "What was the maximum, minimum and mean temperature on January 13th, 1929?"

The answer is: The maximum, 25; minimum 3 below; and mean 4 above.

The next question was: "What was the delivery of purchased gas from independent producers in the vicinity of McCutcheonville on January 23rd, 1930."

The answer is: On January 23rd, 1930, there was no delivery of purchased in the vicinity of McCutcheonville.

The next question was: "What was the delivery of purchased gas in vicinity of Tiffin as of January 1st, 1930"?

The answer is: Approximately 558,000 cubic feet per day.

Q. You say that was Tiffin?

A. Yes, sir, the delivery of purchased gas in the vicinity of Tiffin as of January 1st, 1930, and the answer is, approximately 558,000 cubic feet per day.

Q. I guess on those you do not have—you just have approximately 558,000 feet per day; that is in the vicinity of Tiffin?

A. Yes, sir.

Q. On what date?

A. The first of January, 1930. Are you ready for me to proceed?

Q. Yes.

A. The next question was: "What was the delivery from

2764

[fol. 2655] independent producers in the vicinity of Versailles on January 1st, 1930?"

The answer is: No gas was delivered on this date as wells had become exhausted preceding this date.

The next question: "What was the delivery of purchased gas in the vicinity of Kenton as of January 1st, 1930?"

The answer is: Approximately 25,000 cubic feet per day.

The next question: "What was the delivery of purchased gas in the vicinity of Arlington?"

The Arlington referred to is in the northwestern part of the State, south of Toledo.

The answer is: Talbott-Howard measuring station averaged approximately 150,000 cubic feet per day during January, 1930.

The next question: "What was the delivery of purchased gas in the vicinity of Genoa, Woodville and Elmore as of January 23rd, 1930?"

The answer is: 10,000 cubic feet per day during the month of January, 1930.

The next question: "What was the delivery of purchased gas in Shelby County on January 23rd, 1930?"

The answer is: The estimated delivery would be between 5,000 and 15,000 cubic feet per day.

The next question: What was the delivery of gas to The Union Gas & Electric at Centerville on January 23rd, 1930?"

The answer is: 26,523,000 cubic feet.

Q. Is that what goes to Cincinnati?

A. Not entirely.

The next question is: "What were the sales to the Northwestern on January 23rd, 1930, through T, T-50 and D-100?"

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[fol. 2656] The answer is: 35,991,000 cubic feet.

The next question: "Can you tell me on which days the Union Gas & Electric Company delivered gas from their line between Centerville and Cincinnati to The Ohio Fuel Gas Company at Centerville?"

The answer is: "In the calculation of the charts a reverse flow would be known as a negative delivery, which would represent delivery from the Union Gas & Electric Company to The Ohio Fuel Gas Company, and the negative delivery would be deducted from the positive delivery and the entry would be made, as not positive. The charts are not available in our office.

Q. What do you mean by "The charts are not available in our office?"

A. After the charts are calculated they are sent to the Union Gas & Electric Company for verification and they are not returned to us.

Q. Well, did you try to get them?

A. I understand that the charts are destroyed after a reasonable length of time after the figures are verified.

Q. Well, who got that information? I don't care for your opinion about it.

A. Well, I made inquiry and that is the result of my inquiry.

Q. From whom did you inquire?

A. From The Union Gas & Electric Company at Cincinnati.

The next question——

Q. Well, you have nothing of record that would check at all?

A. Well, Mr. Butler, when you consider that in our local office they handle something like 1100 measuring stations a day, each represented by charts, that it would be of no value to retain those charts indefinitely; so after they are

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[fol. 2657] calculated in our office they are submitted to the receiving company or to the producing company for his verification and if he checks with our figures there is no reason why those charts should be retained.

Q. Well, I think the results at least of that kind of delivery—the figures, would be retained?

A. You have the figures; you have the net positive delivery.

A. Yes, I know, but I would like—that, I mean, of course, obviously, Mr. Phillips, are the figures that show what was deducted from what, to get what you call the result; but you say they are not available in any way?

A. No, sir.

Q. Well, I suppose this winter you had some available; I hope they are not destroyed. Maybe you could——

A. I do not recall any instance this winter when we had any master line troubles in the vicinity of Centerville, between that point and where the two 18's cross, that would necessitate our getting gas back from the Union Gas & Electric Company to supply our markets. It would not be anything uncommon if the Union Gas & Electric's 18 inch line was packed up and we lost our line, or the Ohio Fuel Gas Company to purchase sufficient gas to hold their markets until repairs could be made.

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[fol. 2658] Frank W. Phillips further testified on cross-examination:

Q. What do you mean by "Master line" difficulties?

A. One of our large arteries that a great many markets are served from and a good deal is dependent upon that artery.

Q. Well, a difficulty in what master line would call for the use of the back flow of the Cincinnati line?

A. We have a 16 inch line—or the Union Gas & Electric has a 16 inch line between Centerville measuring station and what is known as Burkhart station, which is located in

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[fol. 2659] the vicinity of Dayton.

Q. How many miles between the two, roughly?

A. About—well, this 16 inch line starts right out at Centerville station and flows northerly to Burkhart station; between Centerville and the Logan-Howell station I judge it to be about 25 miles, so that it would be possible either to route gas from the Z-50 18-inch to Centerville and back to the Ohio Fuel's line, which would be more costly than purchasing the gas back from the Union Gas & Electric which would be stored in their 18 inch line between Norwood and Coke Otto so that the gas could go in various directions, and it would be possible for us by utilizing certain storage facilities of the Union Gas & Electric to hold our markets.

Q. Does the Union utilize you that way too?

A. Yes, sir.

Q. If anything goes wrong with it?

A. Yes, sir.

Q. Go back to the other question here; what did I ask?

(And thereupon the former question was read as follows: "Well, a difficulty in what master line would call for the use of the back flow of the Cincinnati line?")

A. It could be from one of many lines; it would not necessarily have to be any single line.

Q. Well, what are the many lines?

Commissioner Geiger: Don't you think he testified to that all in chief?

Mr. Butler: Not this, Your Honor.

The Witness: Any troubles that we might experience on

2768

[fol. 2660] either one of the 18 inch lines, the 10 inch line, numerous 16 inch lines, the 12 inch line, all of which under certain circumstances it would be helpful if we purchased gas back from the Union Gas & Electric.

Q. Well, when you refer to these various sized lines do you mean any of them scattered over the State of Ohio?

A. Yes, sir.

Q. Oh, you don't quite mean that, do you, Mr. Phillips? Surely you don't; but if you do, I will pass that. You are satisfied with your answer?

A. Yes, sir.

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[fol. 2661] J. Paul Blundon further testified:

By Mr. Davies:

Q. Who made the allocation in that case, Mr. Blundon?

A. In United Fuel Gas case, I prepared all of the figures; that is, the demands, etc., for the allocation; Mr. Carter made the final multiplication and testified to it.

Commissioner Geiger: Probably he might be permitted to testify to those matters which are within his personal knowledge. Outside of that——,

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Mr. Davies: That is all I am asking for.

Mr. Turner: We object on the ground that it is already in evidence in this case who made the allocation in the West Virginia case and the method is there; the whole thing is set out there and who did it.

Mr. Huffman: Well, who testified to it?

Commissioner Geiger: The witness may answer.

Mr. Turner: Note an exception.

By Mr. Davies:

Q. The question is, what was the nature of that allocation?

A. The production property and production expenses were allocated on the basis of sales.

The transmission property and transmission expenses were allocated on the basis of the demand mileage.

The general property was allocated on the basis of the property percentage.

The leaseholds were allocated on the basis of sales.

Commissioner Bricker: The general property on what?

The Witness: On the basis of property; that is, on the

basis of the user's share of the property which had been previously allocated by the basis of sales and demand mileage.

[fol. 2662] Perhaps I can explain that a little better by an example. We will assume that the sales percentage is 10; the production property is 100; the user in that case would be allocated 10 per cent of the production property.

We will say that the transmission property is 100 and that the demand mileage percentage is 30 to this particular user; he would then be allocated 30 of the transmission property; we will leave out distribution to simplify the

4362

[fol. 2663] example; and in that case the property percentage would be 40/200.

The leaseholds were allocated on the basis of sales.

The State and local taxes on the basis of property.

Gas used by the company on the basis of expense.

Federal Income tax on the basis of property.

General expense on the basis of expense.

After the property was then allocated the proper credits were taken for gasolene earnings, amortization, depreciation and return applied direct to the allocated rate base.

[fol. 2664] Q. To what extent, if at all, was this method agreed upon by both parties in the United case?

4363

The Witness: The method of allocation in the United Fuel Gas case was agreed upon in principle; that is, that various methods of allocation that I have listed here were agreed upon; we differed upon the application of that principle to demand mileage.

The company basis for the demand was the five maximum days demand of the system.

The protestants demand was the five maximum demands of the individual user; by that I mean city gates and big industrial consumers and the wholesale consumers.

They differed also on the mileage, the company's mileage being the mileage which the gas was transported in their pipes; the city's mileage being the mileage that the gas was propelled; or, to make it simpler, to its next point of compression. The first, or demand differences, did not

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materially affect the allocation percentages. The mileage differences did lower the percentage to W. Va. There was a difference of probably two or three per cent on the demand mileage basis which was caused by the difference in mileage.

We had a conference and agreed to the figure on each basis; in other words, reduced it to a difference in principle.

[fol. 2665] By Mr. Davies:

Q. Mr. Blundon, did you apply this method of allocation, that is, the method of allocation used in the United Fuel Gas Company case, and make a study of the use that The Ohio Fuel Gas Company makes of The United Fuel Gas Company to determine the wholesale price for gas at the Ohio-West Virginia state line?

A. I did.

Q. In making this study did you prepare, and do you have in your possession, the working papers necessary to make such an allocation?

A. I did; I had in my possession the daily meter readings of all the wholesale consumers, all of the industrial consumers and all of the city gate meters for the year 4365

[fol. 2666] 1928, as well as the length of all transmission lines.

Mr. Turner: I assume those working papers will be made available to us so that we may see them?

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[fol. 2667] Q. Have you made a study to determine the wholesale price of gas at the city gates of Columbus as of December 31st, 1929?

A. I have.

Q. And what is the basis of that study?

A. That study is made on the basis of an allocation of the property and expenses of The Ohio Fuel Gas Company to the service of the Columbus area and is made on the basis of sales, demand mileage, property, expense, in the same manner as the allocation was made in the West Virginia case.

Q. Will you please explain any adjustments that you made in the figures of the company for both property and expenses prior to the allocation of those figures?

A. Turning to page 16 of my Exhibit 74, or City Exhibit No. 74 I mean, there is listed there by accounts, according to the Uniform Classification of Accounts prescribed by this Commission, in Columns 1, 2 and 3, the inventory and appraisal of Ford, Bacon & Davis presented in this case, without alteration or charge.

Under the fourth column, "Less Adjustments," are these figures with the adjustments that I have previously testi-

4375

[fol. 2668] fied to and which I will outline as we proceed.

You will note that the first figure that is changed is opposite account "Gas well equipment" where we have changed the price of casing and tubing to conform to the first part of this Exhibit No. 74.

We have made a similar change in reproduction new of Account 214, "Field line equipment."

We have eliminated incomplete construction and changed general overheads to 14 per cent, as previously outlined.

Under Account 221, "Compressor Station Structures" we have eliminated the old boiler house that I testified to.

Under "Transmission Line Equipment" we have changed the pipe prices as outlined in the first part of the Exhibit No. 74.

We have changed the general overheads on transmission system property to 14 per cent.

We have changed the general overheads on general property to 14 per cent.

We have eliminated from this place working capital, and made a substitution later on.

We have eliminated going concern value and have substituted for the leaseholds $5.00 per acre for the No. 1 operated leaseholds.

Under "Operating Expenses" shown on page 18 we have made an adjustment in the production operating expenses of $1,080,221.00, due to the difference in prices of gas at the Ohio River.

Q. What do you mean by that, the difference between the——

A. The price that the company pays the United Fuel

4376

[fol. 2669] Gas Company and the fair price as previously determined in this exhibit, page 14, 20.061 cents.

Commissioner Bricker: Is that 20.061 cents based upon your $5.00 an acre valuation?

The Witness: No, sir, that is based on the figure of the West Virginia Commission.

Commissioner Bricker: Oh, I see.

The Witness: Yes, sir. Now on page 18, the figures shown opposite "Production," "Transmission," "Distribution" and "General" and under the heading "Total," are the operating expenses as testified to by Mr. Allensworth and as furnished to me for the purposes of this exhibit.

Mr. Turner: That is, you just used Allensworth's and not your own figures?

The Witness: That is correct.

By Mr. Davies:

Q. In other words, if I understand you correctly then, subject to these particular items that you have mentioned, you have used the figures of Ford, Bacon & Davis as presented in this case?

A. Yes, sir, and of Mr. Allensworth as presented in this case to this point.

Q. Yes, with reference to this one particular item?

A. Yes, sir.

[fol. 2670] Q. Did you make an allocation of the property accounts and expenses of The Ohio Fuel Gas Company to determine the wholesale price just referred to?

A. I did.

Q. Will you please explain that allocation?

A. This is an allocation of the property and expenses of the entire Ohio Fuel Gas Company to the use of the Federal Gas & Fuel Company and The Columbus Gas & Fuel Company according to the use that the last named companies

4377

make of the system of The Ohio Fuel Gas Company as a whole.

This system of allocation is on the sale, demand mileage, property and expense basis and is the same system of allocation as was used in the recent United Fuel Gas Company case in West Virginia, and agreed to by both parties in that case.

Mr. Turner: We object to that statement.

The Witness: And is the same system of allocation as was used in the 1923 United Fuel Gas case; that is West Virginia Public Service Commission case No. 1516, and not contested in the Federal Courts on appeal.

In this method of allocation the production property and production system expenses are allocated to the user in the proportion that the total yearly sales of the user bears to the total yearly sales of the system as a whole.

The transmission system property and the transmission system expenses are allocated to the user in the ratio of the demand of the user to the total demand on days of maximum demand of the system, weighted by the distance that the gas is required to be transported from its point of major compression.

[fol. 2671] In the instant case two days of maximum demand were considered, that is, January 13th, 1929, and January 23rd, 1930, and a careful study was made of the meter readings of the company, including their line check meters, to determine these demands. These were compared with the estimated maximum demands shown on maps in the company's possession.

Where no town check meter readings were available the estimated maximum demand as shown by the aforesaid map was used.

4378

[fol. 2672] The mileages were carefully ascertained from the property record maps of the company.

The general property was allocated on the basis of property; that is, the general property was allocated to the use of Columbus in the same proportion that the allocated share of the production and transmission property bear to the total production and transmission property as a whole.

I might explain in that connection that it would have been proper to have considered the distribution property in allocating the general property if the amount of it had been available or in the record. The consideration, however, of the distribution property would have reduced the amount of general property allocable to Columbus.

The general expenses were allocated on the basis of the ratio of the allocated proportion of the production, transmission and distribution expenses as a whole.

Commissioner Bricker: Did you, in considering your distribution property, or in considering your transmission

property, not segregate the distribution property that The Ohio Fuel Gas Company actually uses in distributing to consumers before allocating to the City of Columbus?

The Witness: We did not consider the distribution property at all as property. This allocation is to determine a city gate rate for Columbus or for any other point; in other words, 100 percent of the entire property of The Ohio Fuel Gas Company is allocated to some particular service, either the service of a city gate or of an industrial consumer or a wholesale consumer outside of a city gate.

Commissioner Bricker: And you took the whole 100 per-

4379

[fol. 2673] cent before arriving at any allocation at all?

The Witness: Yes, sir.

Commissioner Bricker: And that included the distribution property likewise?

The Witness: No, sir: we make no allocation of the distribution property; distribution property would be allocated direct to any user.

Commissioner Bricker: I thought you said you had not considered that and if you had it would have reduced the property allocated to the City of Columbus?

The Witness: I said we had not considered the distribution property in the allocation of the general property.

Commissioner Bricker: Oh, I see; all right.

The Witness: The general property——

Commissioner Bricker: It would be a very small fraction?

The Witness: Yes, sir, it would not make a very material difference; but the general property serves all of the property of the Ohio Fuel Gas Company, both production, transmission and distribution, but we did not have the figures on the distribution property; it would have slightly reduced the property percentage in this allocation.

Commissioner Bricker: The general property allocation?

The Witness: Yes, sir. These allocation factors are shown under the heading of "Allocation factor" and applied, bringing a total operating expense, exclusive of depreciation, return and taxes, of $1,446,052.00.

Including depreciation at 3.6 percent of the rate base and return at 6 percent of the rate base, we have a total maxi-

4380

[fol. 2674] mum cost of service exclusive of taxes to the

Columbus area of $2,209,407.00, or a cost of service per M C. F. exclusive of taxes at a maximum of 23.8093 cents.

On a 6½ percent return, this becomes 24.2377 cents.

On a 7 percent return, this becomes 24.6662 cents.

Mr. Turner: That is without the taxes?

The Witness: That is without taxes. I would like to say in this connection that in every case where a decision was to be made affecting demand mileages, we made it against the use of Columbus, and that the figures that I have just testified to are in my opinion the maximum rate on these bases and subject to the leasehold change in values.

In arriving at that computation we have used $5.00 per acre on the No. 1 operated acreage. Now, an increase of one dollar or a decrease of one dollar per acre on the No. 1 operated acreage, on a 6½ percent return, would charge the fair price at the city gate of Columbus .053405 cents per M; on a 6 per cent return, .050761 cents per M; on a 7 per cent return, .056048 cents per M.

Mr. Turner: Before Mr. Blundon leaves that page, may I ask a question? You have eliminated all of the rentals in these figures of yours? In other words, you have taken the Allensworth figures?

The Witness: I have taken the Allensworth figures.

4432

[fol. 2675] Cross-examination:

Q. Now, how much of the property of The Ohio Fuel Gas Company did you allocate to the City of Dayton in this allocation that you have made here?

A. It would take some time to work that out, sir, but if you will furnish me with the annual sales to the city of

4433

[fol. 2676] Dayton and would like to have it worked out and the attorney's are willing, I would be glad to do it.

Mr. Turner: I think you misunderstood my question.

(Question read.)

A. I say if you will furnish me with the annual sales and the attorneys on the other side are willing, I would be glad to do it. It would take some time.

Q. I take it then that the answer is that you did not make any calculations to ascertain how much of the property of The Ohio Fuel Gas Company would be required to supply the city of Dayton?

A. We did not complete the calculations and take it out against production, transmission and various classes of property. We determined the demand mileage for the city of Dayton and for every other community, and the proportion assigned to Columbus was their proportion of the total.

Q. What I am trying to get at is that The Ohio Fuel Gas Company's ability to deliver gas to the different places is taken as a hundred?

A. Yes, sir.

Q. Now, in order that we, through our engineers, may look at your allocation and determine whether it is just and correct, ought we not have your break-down of that 100 per cent., to show that you have distributed all over the state and that the percentage you have given to Columbus is correct?

A. I could explain it to you and give you the figures whereby you could figure it out, using the methods I have followed.

Q. I wanted to get what you have done, and that is the reason I wanted your work papers, so that I could have our engineers explain to me how you had arrived at it, and show that you had taken into consideration the rest of the

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[fol. 2677] state. Now, if you have taken into consideration the rate of the state, I would like to know what you assigned to Dayton?

A. I could work that out for you.

Q. Have you worked it out? It is a question whether you did?

A. We have not completed the calculation for every city and town in the state. By the very nature of the calculation, some part of the property must go to every city and town, in other words, 100 per cent. of it allocated.

Q. Give me one town other than Columbus to which you have allocated the property?

A. We didn't work through the percentages to the various classes of property for any town except Columbus.

Q. How could you allocate to Columbus without allocating to the rest of the state?

A. Very simple. Columbus, based on its proportionate share of the demand mileage, was allocated 10.2782 per cent. of the transmission property, based on the sales Co-

lumbus was allocated 16.8150 per cent. of the production property.

Q. Why wouldn't a volume basis of allocation be fair to all cities?

A. Because it does not take into consideration two main factors.

Q. Which are they?

A. That is the relationship of the maximum demand to the average year's sales, and secondly the mileage through which that gas has to be transported on account of the location of the town or city.

Q. Did you take into consideration that there is more than one pipe line coming from Wheeler Station to Columbus?

A. We considered in the mileage——

Q. You can answer that yes or no and then explain.

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[fol. 2678] A. Yes. We considered in the mileage the location of each meter through which gas is measured to the Columbus Gas & Fuel Company and the Federal Gas & Fuel Company; in other words, the allocation was made to Columbus on the basis of the Columbus area.

Q. What do you mean by the Columbus area?

A. All of the gas that is sold to the Columbus Gas & Fuel Company and the Federal Gas & Fuel Company.

Q. Whether used within the city of Columbus or not?

A. Yes, sir. Our determination was a fair city gate rate for the gas that is furnished to them regardless of what they did with it.

Q. What facilities did you take into consideration in connection with the Treat station?

A. I don't understand your question.

Q. We have a compressor station known as the Treat station.

A. Yes.

Q. I am told by the gas company or rather assured by the Gas Company that they supply some gas to Columbus from that station. Now, I want to know what part of that station, if any, you allocated to Columbus, and what part of the pipe line, if any?

A. We did not allocate on the basis of any particular pipe line, on the basis of any particular station. It was allocated on the basis of the use that the Federal Gas & Fuel Company and the Columbus Gas & Fuel Company

make of the property as a whole of the Ohio Fuel Gas Company.

Q. Well, didn't you take into consideration the distance that Columbus is from Treat Station?

Commissioner Geiger: Can't you withhold that?

4436

[fol. 2679] Commissioner Bricker: That will be cleared up when you get the working sheets.

Mr. Turner: Yes, that is true, but I am taking Judge Geiger's suggestion of going into this examination to see whether we desire to go into the rest of it.

Commissioner Bricker: How did Columbus fare on this system of allocation with an average taken all over the state?

The Witness: Columbus would get the same proportion of production property as any other town in the state, because it was allocated on a basis of sales. They would get a smaller proportion of the transmission property on account of the mileage, the weighted average mileage gas was hauled being less than the weighted average throughout the state, and also because its relationship of its maximum demand to its total yearly sales is more nearly uniform than some of the other sales.

[fol. 2680] Commissioner Bricker: What if you had averaged the whole of the property on the demand basis?

The Witness: Columbus would have a lower city gate rate than combining the two, because the production percentage on the sales basis was 16.8150, whereas on the demand mileage basis it is 10.2782.

Commissioner Bricker: That is, the production cost——

The Witness: The production is 16.8510 and the transmission, which is based on a demand mileage basis, is 10.2782.

Commissioner Bricker: Isn't it the reverse? My question is if it were all figured on the demand basis?

The Witness: Columbus would get a smaller percentage

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[fol. 2681] of the property and would have a lower city gate rate.

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[fol. 2682] Q. Last night when we adjourned there was a question pending, Mr. Blundon, that you were getting some data?

A. My recollection was that the question was the amount of gas flowing from Treat Station or Homer Station to Columbus. The answer is 7,000 M.

Q. Would it be at a particular day?

A. That was for January 23rd, 1930.

Q. And for January 13th, 1929, which was the other day that you used, have you——

A. We used January 23rd, 1930, only for Columbus, with the exception of two or three meters, for the reason that the metering system to Columbus area was changed materially between those two days. The January 23rd, 1930, was a

4439

[fol. 2683] much larger demand than January 13th, 1929, so in that way it gave the maximum amount to Columbus.

Q. Can you tell us from what wells Columbus got its gas on either of these two days that you have used?

A. I cannot segregate the wells that furnished gas to Columbus on those two days.

Q. To what extent, Mr. Blundon, are the several markets and industrial consumers of the Ohio Fuel Gas Company dependent upon its network of pipes, compressor stations, field gathering lines, wells and other physical property?

A. The markets of the Ohio Fuel Gas Company are dependent upon the wells, pipe lines, compressor stations, etc., to the extent that they are served. It is generally measured by the maximum demand. Transmission system is, of course, designed to serve the maximum demands made upon the Ohio Fuel Gas Company by its several markets.

Q. What criticism have you of the Ohio Fuel Gas Company as it is organized so far as its service is concerned?

A. I do not think I understand that question, sir.

Q. Well, what is wrong with the service of The Ohio Fuel Gas Company?

A. I have made no study of the service of The Ohio Fuel Gas Company.

Q. You have made no study?

A. Not the service they render.

Q. Well, what is wrong with the arrangement of the pipe lines and compressor stations?

A. I have not gone into that. I imagine that, like most companies they have grown; they have made mistakes; they have got some lines they wish they did not have.

There are others that they would probably like to have, but
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[fol. 2684] I have not gone into that.

Q. Well, does the property of the Ohio Fuel Gas Company as now constructed, or as constructed on the last day of December, 1929, either one, admit of flexibility in operation?

A. Oh, yes.

Q. It does?

A. Yes, sir.

Q. By flexibility, of course, I mean the guarding against interruption to service.

A. Certainly.

Q. They guard against interruption to its service to the various markets, do they not?

A. Yes, sir.

Q. And how do they do that?

A. By being able to serve markets from different points; serve the same market, in a good many cases, from one, two or three different points.

Q. Routing the gas different ways?

A. Yes, sir.

Q. Does the transmission system west of Columbus at any time render service to the City of Columbus?

A. It may or it may not; my study on allocation was to determine what service the property was rendering under maximum demand conditions; it may be possible at other times it renders some service or it may not.

Q. You don't know?

A. No, sir, I can only testify to the services that it rendered under the maximum demand conditions.

Q. On what days?

A. On January 13th, 1929, and January 23rd, 1930.

Q. Well, let us take an example; on Tuesday of this week the line of The Ohio Fuel Gas Company, or the lines from Ravenswood to Sugar Grove, were shut down on account of the fact that the State Highway Department had asked the
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[fol. 2685] company to move its lines out of the highway during a reconstruction period, and the service in there was out for nine hours; how would you route the gas to Columbus during that interim?

A. I would have to have all your records, Mr. Turner, of where your gas was available; it is possible to route it in other ways.

Q. Well, I want, in cross-examining you, Mr. Blundon, on your allocation, to know whether you have taken into consideration these other necessary facilities for maintaining service in Columbus?

A. It was not necessary to take those into consideration, Mr. Turner, except under the days of maximum demand. Now a transmission system is designed to meet the maximum load that comes on it, plus some safety factor. Now, the days of January 13th, 1929, and January 23rd, 1930, have been set out here as days of maximum demand, and in our allocation we considered only the demands that were made on the system on those two days as measuring the functioning of the system under maximum demand.

Q. Do you mean to tell the Commission that a reasonable allocation of such a property as that of The Ohio Fuel Gas Company could be made by looking at the maximum demand of two days only, and those two days separated by a year in time?

A. That is the functioning of the system under maximum demand conditions, and that is what the system is designed for; that is what the investment was made for; and to a certain extent the operating expenses that are incurred by the company throughout the year in the way of compressor station operations, etc., are measured by what they have to have at maximum times.

Mr. Turner: Could you please read the question?

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[fol. 2686] (Question read.)

Q. Can't you answer that yes or no and then explain it?

A. Say right previous to my answer, "Yes, for the following reasons".

Q. Go ahead and explain.

A. I did explain.

Q. All right. Now do you know whether the lines of the transmission system of The Ohio Fuel Gas Company north of the City of Columbus ever render any service to the City of Columbus?

A. I think I have testified that 7,000 M. came down under maximum conditions from Treat.

Q. Is that the only line that you think renders any service to Columbus?

A. They are the only lines that render service under this maximum condition we are speaking of.

[fol. 2687] Q. And you in your allocation take unto consideration no other line than that?

A. That is correct, no other condition than that. We did not consider lines in our allocation. Of course, it is always possible that some line will serve Columbus, and, on the other hand, lines that ordinarily serve Columbus will be used to serve some other city, but in our allocation we considered the maximum conditions.

4448

[fol. 2688] Q. Maybe I have not made myself sufficiently clear in the question. Is it possible to obtain through points west of Columbus any part of the supply of gas used in Columbus?

A. It would be possible to route gas——

Q. That is what I am getting at.

A. Yes, sir, it would be possible to route gas so that it would come into Columbus from the west.

Q. Now if on any day the pressure at Logan-Howell station is higher than at the Hague Avenue take-off, which way would the gas flow?

A. Flow towards the lower pressure.

Q. That is towards Columbus. Now I want to ask you if on either of these days that you examined the gas— was not flowing towards Columbus from that point?

A. To make sure that I understand your question clearly, do you mean that the gas was flowing through Z-50?

Q. Yes.

A. In an easterly direction?

Q. Yes, sir, that the pressure at Logan-Howell was higher than it was at the Hague Avenue take-off?

A. On both of those days the gas was flowing westerly through Z-50.

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[fol. 2689] Q. You make that statement?

A. Yes, sir. It is backed up by Exhibit 23.

Mr. Huffman: Doesn't Exhibit 23 show this?

Mr. Turner: Well, now, wait a minute and keep out of this, please, and I ask the Commission to help me a little bit on this, without interference.

Q. I want all the records that you examined; did you rely entirely upon that map or did you read the testimony given by Frank Phillips as to how the gas flowed?

A. Our allocation, Mr. Turner, was made entirely, or practically entirely, from the meter reading records and the mileages from your inventory maps, with the exception of a few instances where it was necessary to get additional information from Mr. Phillips or to get him to explain his map in some particular detail. This map is incomplete and in some instances inaccurate. For that reason it cannot be relied upon.

Q. It cannot be relied upon?

A. No, sir.

Q. We will give you an opportunity to go into that. Did you read Mr. Phillips' testimony in this case?

A. I read Mr. Phillips' testimony in this case.

Q. You read that gas flowed both ways through Z-50, did you not?

A. I do not recollect.

Q. You don't recollect. Did you make any investigations to see whether gas flowed both ways?

A. Yes, we have made all the investigation I think that was necessary.

Q. Made all the investigation that was necessary?

A. Yes, sir. I might add in that connection that the records of the company were not in a complete a shape as would have been desired. We asked for the pressure charts

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[fol. 2690] for all the individual meters which would have determined that by hours, and were advised that they did not exist any more, that they had been destroyed; that would have shown us absolutely whether or not the gas for a period of a half hour might have been flowing in an easterly direction.

Q. Now, did you take into consideration in your allocation any part of the line Z running from Wheeler across to a point near South Charleston there on Exhibit 23?

A. Line Z? You mean Line E?

Q. No, I mean Line Z?

A. Oh, I was thinking of South Charleston, West Virginia. We did not consider individual lines in our allocation but allocated the property of The Ohio Fuel Gas Company as a whole.

Q. I thought you used some demand mileage figures?

A. We did; we allocated the property of The Ohio Fuel Gas Company as a whole on the basis of sales, demand mileage, and other figures that I spoke of.

Q. I confess that I do not understand demand mileage. Now let us take for an example this Z-50; did you take into consideration in your demand mileage Z-50 west of Columbus?

A. Not as Z-50; we took into consideration the distance of any sale or user from the last point of major compression, and as that would involve the length of Z-50, in that way we did take it into consideration.

Q. I just want to know where we can find in your working papers any reference to Z-50 west of Columbus; or to Z from Wheeler to the place where it crosses Z-50?

A. That would be found in the form of distances under the service of the users making use of those lines; for in-

4451

[fol. 2691] stance, the length of Z would be considered in the service to Piqua; or, to change that answer around, I don't recollect who buys from you at Piqua or whether you own the distribution system. Take Cincinnati, the Union Gas & Electric, the length of the lines involved there would be in our working papers.

[fol. 2692] Q. What I am trying to get at is whether or not you allocated any part of that line Z or Z-50 to Columbus?

A. Not as a line, no, sir.

Q. Or did you take into consideration the necessity of routing gas that way some times to Columbus?

A. We took the maximum demands and the mileage from the last point of major compression as indicated by the lines serving the various wholesale meters; it is possible that at some time during the day of maximum demand gas might have flowed easterly in Z-50 but it was not possible to ascertain that definitely without the hourly meter chart, so we took the demand as a whole. Does that answer your question?

Mr. Turner: I don't know. I frankly don't understand that as an answer to the question. Will you read the question?

(Question read.)

A. Not unless it was shown on the days of maximum demand.

Q. Well, assuming that it was shown one day, then where do we find it in your working papers?

A. If it was shown on the days of maximum demand it would be in the working papers opposite the meter name in question, which show the station name, county, township, line, length, 1929 maximum demand, 1930 maximum demand, average demand, length in miles, demand mileage, and a

4452

[fol. 2693] blank column for allocation which was not filled out except for Columbus, and the last column shows the name of the consumer or purchaser at that point.

Q. The 1929 and 1930 refer to the one day in each January?

A. That is right.

Q. And the average is the average between those two days?

A. Yes, sir, except in some few instances for reasons—for instance, in the case of Columbus we were not satisfied with the records for 1929; the records for 1930 appeared much better and gave a higher percentage to the property to Columbus and we selected the 1930 day.

Q. You used the 1930 day only?

A. For Columbus, yes, sir.

Q. Did you use the——

A. That is with a slight variation, Mr. Turner, that on two or three of the stations that appeared like they were measuring the same amount of gas for 1930 and 1929, we averaged it.

Q. Did you average the 24 hour demand or the hourly demand?

A. The 24 hour demand.

Q. Now you say that you have there the lengths of the pipe; have you from where to where?

A. Oh, yes.

Q. That is shown on your working papers from where to where?

A. Yes; it could be determined from where to where by using the working papers in connection with your inventory maps.

[fol. 2694] Q. Can you give me the mileage there that you have taken into consideration of this Z or Z-50, that is, from your working papers?

A. Z or Z-50?

Q. Yes, that part of it that you have taken into considera-

4453

[fol. 2695] tion in your allocation?

A. I will have to read those figures into the record, I guess, sir, because it involves several lines.

Q. All right.

A. Columbus, Arlington Station, gas flowing through Line B, Z-50, Z-54, 34.519 miles.

Q. Well, do you know whether that took into consideration any part of Z-50 west of Columbus?

A. That took into consideration a part of Z-50 that the gas traveled in reaching Arlington Station from Homer.

Q. From Homer?

A. Yes, sir.

Q. But nothing west of Columbus, did it?

A. No, not—in other words, it did not come up from the intersection of Z and Z-50. Shall I continue that answer?

Q. Oh, yes, go ahead.

A. Cleveland Avenue Station, through Line B, Z-50, 36.966 miles.

Hague Avenue Station, through Lines B, Z-50, Z-51, 39.329 miles.

Q. No part of it west of the Hague Avenue cut-off though-

A. That is probably from the intersection of Hague Avenue cut-off.

Q. I say nothing west of that cut-off?

A. Not in the nature—from the intersection of Z and Z-50.

Columbus, Weber Road Station, through Lines B-50, B-49, B, Z-50, 39.934 miles.

The Tulane Station, through Lines B, Z-50, Z-53, 31.386 miles.

Q. Any others?

A. That is all. That is not all the stations but that is all that Z-50 appears in.

Q. Well, now, I want to know, in addition to that, what

4454

[fol. 2696] specific lines you did allocate to Columbus on a demand mileage basis?

A. Demand mileage basis, I do not allocate specific lines.

Q. You do not?

A. No, sir.

Q. What do you allocate on demand mileage basis?

A. You allocate the transmission property of the company as a whole on the basis of the demands of the individual user, weighted by the mileage that the gas is transported to serve that user.

Q. That is what I am trying to get at, the mileage that you used for Columbus from the various points in the state where gas is supplied?

A. Not from where the gas is supplied in the nature of wells, but from the points of major compression.

Q. That is what I want to get at, from the major compressor stations, then; you took into consideration only Lines B-25 and B-50 from Wheeler, did you?

A. The lines that we considered from Columbus—I may repeat this some, because they are listed here—B, Z-50——

Q. Wait a minute, now; B——

A. Z-50, Z-54.

Q. I am talking about getting from Wheeler now. You have said that you did not consider Z-50 west of Columbus, so we cannot get from Wheeler to Columbus by Z-50, so let us get to the lines that you did use from Wheeler to Columbus.

A. All right. B-25.

Q. B-25?

A. B-50.

Q. B-50?

A. Z-50.

Q. Z-50 from Wheeler to Columbus?

A. Yes, it was necessary to go th-ough a part of Z-50

4455

[fol. 2697] from Wheeler to Columbus by the way of Cleveland Avenue, the Cleveland Avenue station.

Q. All right.

A. B-32.

Q. B-32 from Wheeler to Columbus?

A. To Columbus, yes, sir.

Commissioner Bricker: Where is that Line B-32?

The Witness: It is not shown on that Exhibit 23, sir; it probably don't show more than about 25—50 percent of the line. B-39; B-25.

Q. You have given B-25?

A. B-38.

Q. B-38. These are only little stubs around Columbus, aren't they?

A. B-50, B-49, B, B-68, B-25.

Q. Wait a minute now. Where is 68? Are these in Columbus?

A. B-21. They are the lines.

Q. They are the lines?

A. Yes, sir.

* * * * * * *

[fol. 2698] Q. Did you take into consideration T and T-50 which were used in 1930 for supplying a part of Columbus.

A. Not as a length, no sir. The gas that we treated coming from north of Columbus, or in from the north, took the distance from Homer.

Q. Well, now, I am trying to get at from Wheeler right now and I want to know whether you used either of those lines in considering gas coming from Wheeler to Columbus?

A. No, sir.

Q. Did you consider the 16-inch line K-30 which runs from Sugar Grove to Homer?

A. Naturally it was considered in the allocation. Are you talking about from Wheeler to Columbus?

Q. Yes, from Wheeler to Columbus.

A. Yes, sir.

Q. Or from Sugar Grove; when I say Wheeler I mean

4456

[fol. 2699] both Wheeler and Sugar Grove; you so understand it; do you not?

A. Yes, sir.

Q. I want to know whether you took that into consideration in from Wheeler or Sugar Grove to Columbus?

A. No.

Q. You say no; in your opinion it is not necessary?

A. Not under the system of demand mileage allocation, no, sir.

Q. If you found that gas was routed that way to Columbus would you still make the same answer?

A. Yes, it is marketed by the most direct route.

Mr. Turner: Won't you read the question?

(Question read.)

A. The gas is marketed by the most direct route. However, if we had found that on days of maximum demand that that was the practice of the company to pump from Wheeler and repump from Homer back into Columbus, we would have taken it into consideration.

Q. Or would you have taken it into consideration if it was necessary at any time for the continuity of service?

A. No, sir, because, as I have explained before, this allocation is made on the basis of the maximum demands of the users—made on the basis of the users on maximum demand conditions and it is perfectly possible that Sugar Grove may pump through Homer and back to Columbus at times, but that is not the practice of the company and the system and property are not laid out in that connection.

Q. You testify to the practice of the company; how many days did you spend in making up your allocation exhibits and getting the data? Now we are talking about allocation now.

A. That would have to be an estimate. In my opinion,

4457

[fol. 2700] there is probably 250 to 300 man days.

Q. Of your own time?

A. I have put in approximately 55 days on this work.

Q. On all of it or just the allocation?

A. On all of it, of which a good part of it has been allocation.

Q. You mean to count each 24 hours as a day, or do you by working in the evenings or night get more than a day?

A. No, sir, I mean by days the calendar days. It probably would average I expect ten hours of work.

Q. When did you first come on the job, about what date?

A. My first trip to Columbus was in the first part of July and my recollection is that we began this work the last part of July.

Q. Began the work the last part of July of this year?

A. Yes sir.

[fol. 2701] Q. Now, before we get away from it, I understand you to say that in your allocation you allocated lines only back to the master compressor stations, is that correct?

A. That is correct. That is the method that was followed in the United Fuel Gas case and I followed the same method here.

Q. And the two compressor stations that you speak of, or the compressor stations to which you refer, the Wheeler-Sugar Grove is one and the Homer or Treat is the other one?

A. They are the only two stations that I mentioned in my testimony so far.

Q. Well, what other stations did you use in making your allocation of demand mileage?

A. All of them.

Q. I did not catch that?

A. All of them were used at some time or other, all the stations that were in operation on those two days were

4458

[fol. 2702] used at some time or other in the allocation, I expect.

Q. Well, I would like to get just what stations were used. It is very important to me, to try to understand your testimony.

A. All right, sir, all of them, I am referring to the primary stations.

Q. That is what confused me because there are about 39 stations altogether, aren't there?

A. Yes, sir, the Homer, Pavonia, Elk and Hagan, Crooksville Station, North Eaton Station, the Gore, York, Malta, Ashland, Gay, Sutton, Meigs, Glenford, Union Furnace, West Salem, Westland, Lick; I think that is all, sir, I would want to save—if I have omitted one, I would like to be able to include it at a later date.

Q. Yes, sir. We understand you to say that you have included all of those stations in your allocation on the demand mileage basis?

A. No, I said—I meant to imply that that was the beginning point, that all of those stations were the beginning point on some demand mileage, some user's demand mileage.

Q. How about Columbus; was Columbus considered a user in any of those demands?

A. The distance that the gas traveled to Columbus was not considered from any of those stations except Treat and Wheeler.

[fol. 2703] Q. Well, now, I did not hear you give—and you may have given it and I did not catch it—either Laurel

or Benton, which are south of Wheeler; did you allocate those on a demand mileage basis?

A. All property of the system in the system was allocated, Mr. Turner, but no measurements or distances for

4459

[fol. 2704] the travel of gas were begun at those points for Columbus.

Q. In other words, in starting to measure for Columbus you only began at Wheeler and Homer?

A. Wheeler and Homer, they being the points of major compression. The stations that you mention are small stations that are merely to keep the pressures in the field lines low.

Q. Well, I have others here. Now, without more than looking at two days maximum demand of The Ohio Fuel Gas Company how were you able to allocate its property?

A. I believe that if the records had been available that it would have been better to have considered five days, but inasmuch as Mr. Philips had testified to two maximum days, two different years, it seemed to be agreed that they were maximum days, and I considered those sufficient for such an allocation.

In other allocations, or, to be specific, in the United Fuel Gas allocation, where five days were considered, the result would not have been materially different if two days had been considered.

Q. Well, now, first, who denied you any information on allocation?

A. There was a continuous fight to get it.

Q. Who denied you any information?

A. Mr. Phillips.

Q. What did he deny you?

A. Why, when I first went there he denied us to even see the original records.

Q. Did you get to see them?

A. By sheets, yes, sir. We would ask for a whole book of meter reading and he said "Oh, you can't do that; tell me the sheets you want and I will give them to you", and he would bring a handful of sheets.

Q. Weren't they all given to you, everything you asked

4460

[fol. 2705] for?

A. No, I would not say that, not by a long shot.

Q. Now be specific and tell us anything you asked for that was not given to you?

A. Yes, sir; we asked for the book of wholesale meter readings; that was refused us. We were given ledger sheets from that book.

Q. You were given all the ledger sheets you asked for?

A. I don't know whether we were or not; we asked for the book; we were never given the book but were given sheets out of the book.

Q. The company was running, wasn't it, doing business?

A. Yes, sir.

Q. And they gave you the sheets out of the book as you asked for them, did they not?

A. But I still don't know whether we got the entire book or not.

Q. You got everything you asked for?

A. They brought up the sheets; we asked for the book in its entirety.

Q. I assumed that everything was opened to you and that you got everything you asked for and I know of nothing that you asked for and did not get except the lease records here on the question of consideration; we had that question up with the Commission and that has been turned in here now. I know of nothing else; never was anything brought to my attention by you or by your attorneys.

A. I am not sure in my own mind so that I can so testify under oath that we got all the information that we asked for.

Q. Well, I just want you to be specific, in telling me one that you did not get. Well, we will pass on then. Are you familiar with whether gas was delivered out of T and T-50 into Line B at New Albany on either of the two days that you observed?

4461

[fol. 2706] A. I do not see New Albany on this map.

Q. Mr. Seyffert has indicated a crossover there where it intersects B?

A. Our allocation of property to New Albany was made on the basis of Lines B and B-12 from Homer Station. Its 1930 demand is 38,000 feet per day.

Q. I want to know whether you ascertained whether there was any gas going to Columbus through Line T and

T-50 on either of these days? It would go through T or I-50 up to B and then west to Columbus; did you ascertain that?

A. I think I answered that question once.

Q. What was the answer?

A. The answer was to the effect that we did not consider that distance.

Q. No, that is not the question; I am asking you whether or not you observed whether gas was on either of those days delivered that way to Columbus?

A. We ascertained it in this way, sir, by the meter readings at Crawfis Station, which is on T and T-50 between Wheeler and the crossover and by the measuring station that is located on the other side of the crossover. That indicated that there was no gas on the 24 hour basis being put into the crossover.

Q. Crossover where?

A. Between B and T and T-50.

Q. I am talking about now T and T-50 and B into Columbus.

A. Yes, sir. I answered that by saying that there was more gas or as much gas in T and T-50 north of its intersection with B as there was passing through Crawfis Station outside of Wheeler.

Q. Well, what am I to deduce from that, that there was no gas that went to Columbus on that date from that place?

A. You can deduce from that that it was not necessary

4462

[fol. 2707] for gas to go that way or essential to the service at Columbus for gas to go that way.

Q. And if it did what would you say?

A. I don't believe it would; if it did and we had taken it around that way it would not have made any material difference in the allocation.

Q. Do you know where the Linden Station is?

A. Yes, sir.

Q. Do you know whether or not Line B supplied the bulk of the gas delivered to the Linden Station on January 13th, 1929, or whether the bulk of that supply was delivered from B-49?

A. The map that I have here is not correct at that point. Our allocation for maximum day of 1930, there was a demand——

Q. Now I don't like to interrupt you but my question was regarding January 13th, 1929.

A. I have previously testified, sir, that the allocation of gas to Columbus—and I will make it specifically as far as Linden Station was concerned—was based on the maximum demand in 1930; the amount of gas passing through Linden Station in 1929 was 2,824 M and in 1930, 17,961 M.

Mr. Turner: You probably did not catch my question and I will ask the reporter to read it.

(Previous question read as follows: "Do you know whether or not Line B supplied the bulk of the gas delivered to the Linden Station on January 13th, 1929, or whether the bulk of that supply was delivered from B-49?")

The Witness: For the purposes of our allocation we were not interested in the amount of gas at Linden Station

4463

[fol. 2708] on January 13th, 1929, as the system metering gas to The Columbus Gas & Fuel, Federal Gas & Fuel, was materially changed between January 13th, 1929, and January 23rd, 1930. I can give you the lines facing Linden Station on January 23rd, 1930.

Q. May we then have the record show that you are not familiar with where the gas came from on January 13th, 1929?

A. Yes, sir, I previously testified that as far as Columbus was concerned, with the exception of one or two measuring stations, we used the 1930 maximum demands which were greater than the 1929 maximum demands.

Mr. Davies: By how much?

The Witness: By ten percent approximately; maybe not quite that much.

[fol. 2709] Q. Now, if on January 13th, 1929, it happened that gas was delivered out of Lines Z-50, that is, west of Columbus, back into Columbus and thence into the Columbus belt line would that have been something to have considered?

A. If that station had been considered on that day in the allocation that mileage would have been taken into consideration. However, it still would not have materially affected, or affected the allocation percentages to Columbus.

Q. Did you take it into consideration?

A. I told previously, sir, I did not.

Q. Do you know whether Columbus benefited from gas being routed through K-30 on either of the two days in question?

A. No gas was compressed——

Q. I just asked you if you knew whether or not Columbus benefited from gas or received gas that way; if you don't

4464

[fol. 2710] know, the easiest thing in the world is to tell me.

A. I do not know and I did not include K-30 in the distances that we allocated.

Q. Do you know the proportion that gas was delivered at the crossover at Carroll between B-25 and B-50, and if you did, give me the basis of the measurement which you assumed as the correct basis?

A. We considered no crossover measurements at Carroll; had no meter readings available there.

Q. You are making that statement from the statement the young man at your side just gave to you?

A. Yes, sir, and I can check it if you prefer, from our records.

Q. I would like to have you check it.

A. Prior to answering that question I would like to state that we requested from the company all line check measurements in the company's possession. First, we were refused that information, and finally were given a certain number of the line check measurements. There were no measurements for Carroll crossover given us among those records.

Q. Now leave out of the question the measurement and answer, if you please, whether or not you considered any gas as coming through that crossover?

A. The gas in B-50 was taken from Wheeler station, the gas in B-25 was taken from Wheeler station, to Columbus, without any change in amount of gas in the respective lines at the crossover.

Q. Did the crossover in any way figure in your demand mileage?

A. It did not.

Q. Do you know whether or not the two 12-inch lines forming Line B out of Homer were operated together or separately on either of these two days in question?

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[fol. 2711] A. I do not know; the records that I have here may show it; it would take considerable time to look it up.

Q. Did you take that into consideration?

A. The demand at Columbus was taken at 7000 M as being supplied from Homer and that was multiplied by the distance, from Homer to Columbus to determine the demand mileage factor.

Q. What I am trying to get in my humble way is whether or not you considered both of those 12 inch lines that start out of Homer?

A. We did not consider any lines, sir, as lines. We considered lines only as indicating distance and it would not have made any difference in our allocation if there had been a dozen 12 inch lines going out of Homer in that direction.

Q. Well, do you know whether that south 12 inch line was used as an intake or discharge?

A. I do not, sir.

Q. You don't know as to the north—the same as to the north line?

A. No, sir.

Q. Or do you know the pressure that was in that line, Line B, on those days?

A. No, sir. We asked for that information and were advised that they did not have it.

[fol. 2712] Q. Do you know whether that Line B or a part of it was used as an intake at any time?

A. I do not know that, sir. If we had been furnished with the information that we asked for that could have all been shown.

Q. I want to know specifically any information that you asked for and you notified me, or your counsel notified me, that you did not get—one single item?

A. We asked for all pressure readings that were available.

Q. Did you notify counsel or me?

A. No, sir.

Mr. Davies: You were told in that case that they did

[fol. 2713] not have them?

The Witness: Told in that case they did not have them. We assumed that they did not have them.

By Mr. Turner:

Q. Who told you that?

A. Mr. Philips. We asked for all of your daily engine loss at all of the compressor stations and we were told that that information was not available and were given a summary which of course was not what we wanted and did not serve the purpose.

Q. Did you notify me that you did not have it?

A. They told me it was not available; I assumed the gentlemen was telling the truth.

[fol. 2714] Q. Do you know whether any of The Ohio Fuel Gas Company's major transmissions were out of service due to breaks or other causes on either of those two days?

A. No, sir, I do not know.

Q. Do you know whether or not they are frequently out or ever out?

A. I hope they are not frequently out; I presume they are out occasionally.

Q. You just presume; you don't know anything about it?

A. No, sir.

Q. I am trying to get at your knowledge.

A. No, sir.

Q. Pardon me for being persistent about it but I just want your knowledge; not any presumptions.

A. I see.

Q. We talked about this Z and Z-50 awhile ago and I want to know now about another line, the Line A that is north of Z out of Wheeler; do you know whether or not there was any gas discharged into that Line A at the—it is South Charleston or Logan-Howell there, I don't know which

[fol. 2715] one it is—to Z-50, that came back to Columbus on either January 13th, 1929, or January 23rd, 1930?

A. I don't know, sir.

Q. Are you familiar with the operating conditions in the vicinity of Mount Sterling relative to the tie-in Lines A, Z, and Z-32 on the two days in question?

A. That did not enter into our allocation.

Q. You are not familiar with them either?

A. No, sir.

Q. And did you take into consideration that Line Z-32 may be helpful in delivering gas into Z-50 at a point near South Charleston?

A. Not in particular; as I have previously explained, that is not necessary in the demand mileage basis of allocation.

Q. Now are you familiar with the fact that Line Z is tied into Z-50 at a point near South Charleston?

A. This map shows it to be that way.

Q. Outside of that way, did you make any investigation at all?

A. We went over all the transmission maps of the company.

Q. All right in your opinion how would gas he delivered to Hague Avenue and Weber Road it was necessary to shut off Z-50 between Linden and Weber Road and the Weber Road connection?

A. I would have to have detail maps in order to answer that question. This map is inaccurate and incomplete in that it don't show a lot of small lines that exist. If you give me the transmission maps, inventory maps, I will try to answer your question.

Mr. Davies: May I just break in; when you say "this map" are you referring to Company Exhibit 23?

The Witness: Yes, sir.

4468

[fol. 2716] By Mr. Turner:

Q. Well, what I want really to get at is whether or not you looked at any maps of any kind or the property and discovered whether or not there was any way of getting gas to Hague Avenue and Weber Road Stations if it was necessary to shut off Z-50 between Linden Station and Weber Road connection?

A. I did not go into those possibilities.

Q. Well, they are probabilities around the City of Columbus, aren't they?

A. You can call them probabilities if you will. I was interested in how the system functioned under maximum days and did not go into possibilities or probabilities.

Q. We may differ from you a little bit on it, and that is the reason I am bothering you with these questions. We think it is service.

A. I see. Well, I did not go into that.

Q. Well, did you give any consideration to the facilities necessary to provide continuity of service for the City of Columbus?

A. I did not, for this reason, that it is true that there are certain lines around Columbus that are not ordinarily used to serve it that can be used to serve it. On the other hand, the lines around Columbus that are naturally used to serve Columbus can be used to serve other cities. That exchange is mutual and all of the property, whether used directly or indirectly, is included in the property of The Ohio Fuel Gas Company and that is allocated to Columbus on the basis of demand mileage; that is, all transmission property is allocated on that basis.

Q. That is, you have allocated it on the basis of the shortest mileage though, haven't you?

4469

[fol. 2717] A. No, we have allocated it on the basis of the mileage to the individual measuring points.

Q. But the shortest mileage?

A. The Mileage of pipe lines shown in the inventory maps.

Q. But the shortest mileage; the inventory maps show many ways to get to Columbus?

A. We allocated on the way it was being used on January 23rd, 1930.

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4470

Q. You were speaking about these compressor stations a little while ago, these ones back of the major stations; let us take Ashland or York; would a temporary shut-down of either Ashland or York affect Homer or Treat?

A. That is another question, sir, that I could not answer from the stand.

Q. Well, what I am trying to get at there is whether or not in your opinion in the event of a shut-down at either one of those compressor stations, whether the market supplied by Treat would not have to be supplied from some other point?

A. That is a possibility; it would depend on a good many things that I do not have the records of available here.

Q. Was that taken into consideration in your allocation?

4471

A. No, sir. We allocated the system, as I have stated a good many times before, on the basis of its use on January 13th, 1929, and January 23rd, 1930.

Q. Well, you pardon by dumbness for not understanding it, I hope. The same question I would want to ask in reference to Wheeler Station I assume your answer would be the same?

A. Yes, sir; we did not consider probabilities or possibilities.

4472

[fol. 2718] Q. Mr. Blundon, who told you that the map on Exhibit 23 had been prepared for allocation purposes?

A. I don't remember of ever being told that it was prepared for allocation purposes. However, it showed the days of maximum demand, the suggested allocation, and it had been prepared and submitted with Mr. Phillips' Exhibit, being Company's Exhibit Number 23, which, together with his testimony, or some of it, was in relation to application.

Q. Mr. Phillips took the position that the property could not be allocated, did he not?

A. Yes, sir.

Q. It was never at any time offered for allocation?

A. I would not say it was offered for allocation purposes.

[fol. 2719] Q. Now, did you ever hear of the Cambridge Field?

A. You mean of this property?

Q. Yes.

A. I have not considered or have not heard of the Cambridge Field separately as a field. The fields, as I have designated them in this——

Q. I just want to know about the Cambridge? None other at the present time?

A. No, sir.

Q. You didn't know then that up until three years ago

4473

practically all of the supply of the City of Columbus came from the Cambridge field, did you?

A. No, sir, I didn't go into any conditions three years ago.

Q. Did you take into consideration the possibility of another such change as happened with the Cambridge Field Supply?

A. No, sir.

Q. Now, I wish you would turn for a little bit to your Exhibit 74 and to page 16 thereof. I first want to ask you,

so as to get it straight in my own mind—the Commission may have it—are your compressor stations in your production or transmission system in your allocation?

A. They are in the transmission system.

Q. And not in the production?

A. No, sir.

Q. Then how do you allocate them? On a demand mileage basis?

A. On a demand mileage basis, yes, sir.

[fol. 2720] Q. Do you allocate everything behind the main compressor stations in a lump sum?

A. I don't think that I understand your question. Everything that is classified in the appraisal of Ford, Bacon & Davis as transmission system property is allocated on the demand mileage basis. Now, this appraisal is prepared in accordance with the uniform classification of accounts prescribed by this Commission, and includes accounts 218 to 227, inclusive, with their proportionate share of the general overheads.

Q. Well, that does not quite get at what I want. But I will get back to it and I may make it a little clearer by asking a few other questions. In Column 7, on Page 16, of Exhibit 74, under the title, "Allocation factor," you have in the first place in that column 16.8150 which you apply to everything that you have left in the production

4474

[fol. 2721] system property. I wish you would give us the method of obtaining the 16.8150.

A. The total yearly sales of the Ohio Fuel Gas Company, as furnished to me by Mr. Allensworth, are 55,186,453.9 M. The total yearly sales to the Columbus Gas & Fuel and the Federal Gas Company furnished to me from the same source, were 9,279,605 M. The latter figure being 16.8150 per cent. of the former figure.

Q. And in your allocation you have included the demand of both the Columbus Gas & Fuel Company and the Federal Gas Company?

A. That is correct, to determine a fair city gate rate for both. And, of course——

Q. You have stated here, as I caught it, that you did the figuring on the allocation in West Virginia that Mr. Carter testified to in that case?

A. Yes, sir, that is correct.

Q. That is correct? How much did you allocate to Charleston, West Virginia, of the United's property?

A. The allocation in West Virginia was an allocation between the regulated business and the wholesale business. Only indirectly was an allocation between the various communities made.

Q. Name any indirect allocation between the various communities in the State of West Virginia?

A. You will find that in the separate brief of the City of Williamson, filed in that case, and for which I prepared the data.

Q. Did the Commission make any allocation as between any communities in West Virginia?

A. The Commission did by fixing different rates for different communities.

Q. Wasn't the rate fixed on last Saturday a flat rate for the entire state of West Virginia?

A. That is true as to the temporary rate fixed on last Saturday. My statement was to the rates fixed in Decem-

4475

[fol. 2722] ber of 1930.

Q. And there was no allocation of property as between those communities found by the Commission? Was there?

A. On last Saturday?

Q. Or at any time in this United Fuel Case?

A. They fixed different rates for the different towns.

Q. You have told me that, and I have asked you whether or not there was any allocation of the property of the United Fuel made by the Commission.

A. The protesting cities made no allocation between the different towns.

Q. By the Commission?

A. I can not answer as to what they took into consideration in fixing the different rates.

Q. You have answered as to what was done in that case several times?

A. I never answered what the Commission did that was not in their opinion, sir.

Q. Is there anything in your opinion then that shows the slightest allocation between communities in West Virginia?

A. The difference in rates is all that I could say.

Q. What had the local expense to do with that?

A. It probably had some effect, but you will find a difference in rates between Charleston and Huntington, where the local expense was about the same.

Q. Wasn't that the only factor, that of local expense, taken into consideration in fixing the rates in West Virginia?

A. I couldn't tell you what the Commission took into consideration, sir.

Q. You said that there was an allocation as between the wholesale and the regulated business?

A. Yes, sir.

Q. Now, what part of the wholesale business is West Virginia business?

[fol. 2723]

A. I couldn't tell you what portion of it. There is a portion of the wholesale business that is West Virginia business.

Q. What particular part of it?

A. That part which is sold to the manufacturers' light and heat company at Cedarville.

Q. Goes up into Pittsburgh?

A. Goes up into Wheeling, also.

Q. Well, from that standpoint, of course, all of the wholesale gas is sold in West Virginia, but transported out, isn't it?

A. No.

Q. What is an exception?

A. The exception is the Central Kentucky.

Q. That goes into Kentucky, though, doesn't it?

A. It is measured in Kentucky. It is sold in Kentucky.

Q. What I am trying to get at is the fact that the wholesale business is gas that is exported from West Virginia; isn't that true?

A. No, sir, not in its entirety.

Q. In what proportion is it true?

A. I couldn't estimate.

Q. In a very much larger proportion; is that true?

A. I would say in the larger proportion, it was true, but I could not estimate that. That is one thing that I haven't gone into in that way.

Q. Those figures were all in Williamson's report in the United case, weren't they?

A. I don't think so.

Q. You don't think so?

A. I have been over Mr. Williamson's report and I have never seen it.

Q. And the proportion of the gas that was sent out of the State was not in Williamson's Report?

A. No, sir, I don't think so.

Q. Now, how did you obtain the factors in the same

4477

[fol. 2724] seventh column down below 10.2782?

A. A separate factor was determined for each city gate meter, industrial meter, wholesale meter, estimate for rural meters, this factor being the maximum demand of that user times the miles the gas had traveled from its point of last major compressor. The sum total of these factors was 16,753,420.4. That factor for Columbus was 1,721,944. The later figure being 10.2782 per cent. of the former figure.

Q. Tell me, if you please, how you got the sixteen million?

A. The sixteen million is the sum total of the factors for all of the users of the property of the Ohio Fuel Gas Company.

Q. All of them in the state?

A. All of them in the State and also Indiana.

Q. Can you give us the mileage on each and the demand on each?

A. I have them in my working papers. Shall I read them off?

Q. Yes, if you please?

A. Academia, 49 demand; 14.690 miles.

Ada, 261 demand; 8.1723 miles.

Adelphi, 40 demand; 16.201 miles.

Alexandria, 80 demand; 2.642 miles.

Allensville, 15 demand; 6.986 miles.

Amanda, 65 demand; 10.653 miles.

Amherst, 398 demand; 6.946 miles.

Appleton, 6 demand; 7.745 miles.

The next three stations are Ashland. 1396 demand; 5.261 miles. 126 demand; .887 miles. 81 demand; 1.553 miles.

Commissioner Hopple: Mr. Blundon, how many towns have you?

4478

[fol. 2725] The Witness: I don't recollect the number. I would estimate *that* the towns and wholesale consumers and industrial consumers at probably 350 or 400.

Mr. Turner: If he turns over his working papers to us, that will be all right. We haven't had the working papers yet, you know.

Commissioner Hopple: Will the total demand in miles which you have referred to, after reading the name of the town, total the seventeen million?

The Witness: Yes, sir.

Commissioner Hopple: Sixteen million?

The Witness: Sixteen million and a fraction; 16,700,000.

Mr. Turner: We want to get in addition to that the source points from which he assumes the gas is furnished.

Commissioner Hopple: Couldn't you get that data from the papers?

Mr. Turner: Not yet from anything he has read from his working papers; we couldn't get that.

Mr. Davies: You have not asked for that yet.

Mr. Turner: I ask for it now, then.

Mr. Davies: What do you want to do with the other question?

Mr. Turner: The Chairman has temporarily stopped that without any objection from me.

Commissioner Hopple: I do not see the reasonableness of going over that.

Mr. Turner: I agree with you if we get the papers.

The Witness: The same thing would apply to the next one. That would take four hundred answers.

[fol. 2726] Q. Give us a cue of how to look at your papers; give us a sample?

A. We will take Academia. The work sheet reads that that gas is furnished off of a gathering line. This town is in Knox County, Population, 310. Gas is furnished through line M-21, M-23, M-42 and M-28. The length of that line 77,565 feet. The estimated demand is 52. The maximum demand, 1929, was 47. The maximum demand in 1930 *and* 50. The average maximum demand used in our computation was 49. The length in miles is 14.690. Its demand mileage factor is 719.810. The source of the gas was at Homer Station.

Q. You say the source of gas was Homer Station? I thought you said that place was supplied on a gathering line.

A. Taken from Homer Station. It was classed as a gathering line by Mr. Phillips when we first went into this. We asked him whether that town here was a gathering line or transmission line. And that information that he gave us is recorded here. In our allocation, however, it was allocated on the basis of coming from Homer Station. It may be one of those lines is alternately used as a gathering line and as a line through which gas is pumped.

Q. Who prepared those papers you have there?

A. They were prepared by my employees under my direction.

4480

[fol. 2727] Q. Let me ask one or two more questions on this Page 16, so that we can try to understand it. Why do you make the difference between the production system property and the transmission system property?

A. What difference?

Q. One is 16.8150 as an allocation factor, and the other is 10.2782?

A. The use to which the production property is put varies

4481

[fol. 2728] in proportion to the mileage demands that are put on it. In other words, the amount of compression station equipment and supplemental equipment to that varies in direct proportion with the maximum demands put on the system. The transmission lines vary with the length that that gas has to be transported. And the same is true of the expenses of the transmission system. While the main items of the production property and the production expenses vary with the number of cubic feet of gas sold. In other words, the biggest single item in the operating expenses, including in that term the fixed charges, is the gas produced, which varies in proportion to the actual number of cubic feet sold. Does that answer your question, Mr. Turner?

Q. What was the factor for similar property in the West Virginia distribution for allocation for either Charleston or Huntington?

A. The finding of the Commission on production property was 20.6667 per cent. On transmission property, was

18.7055 per cent. I do not recollect the general, but I do know those two figures.

Q. What year was that for?

A. 1928.

Q. And varied from year to year, did it not?

A. Just a second and I will give you the other. It would vary. The distribution property of course was allocated direct. Production 20.6667 per cent. Transmission 18.7055 per cent. General property, 22.3730 per cent.

Q. Now, what was the allocation to Charleston or Huntington?

A. That is not mentioned in the opinion, sir, any differences that the Commission made in the rates.

Q. There was no difference in the allocation of the prop-

4482

[fol. 2729] erty any place within the State except the distribution property at the local place, was there?

A. Well, that——

Q. You can answer that yes or no and explain?

A. I answer yes and no. Neither side put into the record——

Q. The last thing you were doing was talking about what the Commission decided. But, go ahead.

A. I say neither side put into the record an allocation to individual communities, neither on the production, transmission or distribution. The Commission in fixing rates fixed a different rate in their order of December 16th for the different communities. In fixing rates in their order of last Saturday, October 3rd, they did not make any distinction between the different communities.

Commissioner Bricker: Just one question. Did they consider in that case the distribution property also?

The Witness: Why, this distribution property was allocated direct. They there expressed a distribution allocation percentage in their opinion but that is a percentage of the value of the distribution property within West Virginia to the value of the distribution property as a whole. In other words, it is allocated direct on the values that they found.

Commissioner Bricker: It did not affect the rate then.

The Witness: Sir?

Commissioner Bricker: It would not affect the rate under that apportionment as between the various cities?

The Witness: No, sir.

Q. In other words, the rate to all of the cities was the same, with the exception of the distribution property within the city, which was allocated right there.

A. No, sir, I don't agree with you, because there is no distinction made between the distribution property in all

2730

[fol. 2730] the cities by the Commission. Now, the Commission in its order of December, 1930, which was reversed by the Supreme Court of Appeals, and which was the only order that they have handed down in the case fixing permanent rates, fixed rates in three classes. A certain group of towns to pay 75 cents for the first thousand and 30 cents for the next 150. And the group of towns to pay 75 cents for the first thousand, 35 cents for the next 150. And the third group, to pay 75 cents for the first thousand and 40 cents for the next 150 thousand. That was the only opinion that purported to be a final order of the Commission fixing rates. The order of October third was an order fixing temporary rates.

Q. Well, you mean to tell this Commission that there was a permanent rate fixed and has been in effect?

A. I mean to tell this Commission that the West Virginia Public Service Commission fixed a permanent rate in December of 1930, and it was set aside by the Supreme Court of Appeals at a later date.

Commissioner Bricker: Why is this a temporary rate?

The Witness: Sir?

Commissioner Bricker: Why is this a temporary rate? What is the purpose back of that, or what is the procedure there that would make this a temporary rate rather than a permanent rate, such as the one fixed in December?

The Witness: The case is to be re-tried on its merits as of a later date certain.

Commissioner Bricker: Before the Commission?

The Witness: Before the Commission, yes, sir.

Q. Something like nine million dollars of property has been left out in the consideration and fixing of the temporary rate, hasn't there?

A. That is your idea of it.

4484

[fol. 2731] Q. What is the fact? I would like to have you on record, whether or not it is a correct statement.

A. I don't think I will go on record that way, thank you, sir, if you don't object.

Q. I don't object. I simply wanted to get out of you if we could in any way the fact of whether or not the Commission in fixing the temporary rate has considered all of the property of the United Gas Company or United Fuel Gas Company?

A. I will have to refer you to the opinion of the Commission, sir.

Q. All right, you have explained it in other respects. I thought maybe you could in that. Now, we will try one other place, Page 107, of the pamphlet, you have in your hand. Down near the bottom, there are some percentages; production system, 20 per cent., 20 plus; transmission, 18 plus; distribution, 70 plus; general property, 23 plus?

A. Yes, sir.

Q. Will you tell us what those mean or to what they refer?

A. They are allocation percentages, sir.

Q. Is the 70.80 an allocation?

A. Why, it is listed there as an allocation percentage.

Q. I am asking you what it is?

A. Sir?

Q. I am asking you what it is?

A. That is what I want to explain to you.

Q. Thank you?

A. That percentage is the relationship between the value of the distribution property in West Virginia as a whole and the value of the whole distribution property of the United Fuel Gas Company and the Warfield Natural Gas Company.

Q. Was that allocated, or any part of it allocated, to any community in West Virginia?

A. I couldn't answer that, sir. None of the opinions have

[fol. 2732] listed a separate allocation of that.

Q. Do you consider that the lines, that the production system, of the United Fuel Gas Company, are, or is, comparable with those of the Ohio Fuel Gas Company?

A. In what way do you mean? You mean is it as complicated?

Q. Well, naturally, we would think of it in such terms; whether or not it was comparable for the purposes of allocation?

A. In my opinion, the property, that is, transmission lines, production property, of the United Fues Gas Company, is much more complicated.

Q. Much more complicated?

A. Than the property of the Ohio Fuel Gas Company, and I believe that anyone who will look at the map in Lerch Exhibit Number 1, which is in this case, and compare it with a similar map in his exhibit, the Ford, Bacon & Davis Exhibit, in this case, will readily see that.

Q. How many customers have the United Fuel in the State of West Virginia?

A. I couldn't tell you, sir, without looking at the record. I don't recollect.

Q. You don't recollect?

A. No, sir.

Q. It is in the record, though, isn't it?

A. Yes, sir.

Q. How many communities in the State of West Virginia does the United serve?

A. I think 53 or 55, some such number.

Q. How many communities does the Ohio Fuel Gas Company serve in Ohio?

A. I don't recall; some 250 or 350 or some such number as that. I don't recall the exact number.

Q. How many compressor stations has the United?

A. The United Fuel Gas Company at the time we made the appraisal, I think, had 23, of which 2 were not being used.

4486

[fol. 2733] Q. Now, take account 226 on page 16 of Exhibit 74, and tell me whether or not that includes any of the lines back of the major compressing stations?

A. As listed by Ford, Bacon & Davis, it does.

Commissioner Bricker: It does not?

The Witness: It does.

Commissioner Bricker: Does?

The Witness: Yes, sir.

Q. Why shouldn't all of the property back of the master compression stations have been allocated by you on your

factor of 16.8150 rather than on the factor of 10.2782?

A. For the main reason that they considered it as transmission line equipment.

Q. Who?

A. Ford, Bacon & Davis, and so list it in their appraisal, and it is not in contradiction of the uniform classification of accounts as worded there.

Q. I am trying to get at why you did not make some distinction in your allocation?

A. Because it would have been practically impossible for me to have made any such distinction.

Q. Why?

A. Because it was not so listed in the inventory.

[fol. 2734] Q. Did you ask for that?

A. I raised that point. One of the first points I raised——

Q. To whom?

Mr. Davies: Let him answer.

Mr. Turner: Go ahead.

The Witness: That was one of the first points I raised in Mr. Phillips' offices, that in my opinion—and I think I raised it in Mr. Welker's office—that in my opinion, a portion of the property classified in Account 256 was improperly classified.

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[fol. 2735] Q. Did you properly classify it in making your appraisal?

A. No, sir, I allocated the property that was listed in that appraisal. If I were making an appraisal of that property, I would probably classify some of it differently.

Q. They were not making an allocation. You were making an allocation. And I want to know why you did not, after you knew that that contained this other property, take it out of there and put it where you think it should have gone?

A. Well, I can explain that this way, that the demand mileage system of allocation for that class of equipment, that is, the lines behind the compressor station——

Q. Sir?

A. I say the demand mileage system of allocation for the lines behind the compressor station is as fair, if not more fair, than the sales basis, for the reason that the length that the gas travels enters into it more.

[fol. 2736] Q. Yes. Now, you have not taken a single length into consideration except from the master station, such as Sugar Grove and Treat?

A. That is right.

Q. Why now here shouldn't you have given the factor of 16.8150 to that property back of those master stations?

A. I have explained that, sir.

Q. No other explanations?

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[fol. 2737] Q. In the event different field compressor stations back of Wheeler and/or Treat are operated to a different extent or purpose, what provision have you made in your demand mileage for this?

A. None.

Q. You have taken two days, January 13th, 1929, and January 23rd, 1930. Do you know whether these two days are indicative of or typical of the directional flow and the source of the gas on other days or on different hours of those same two days?

A. Will you read that question?

(Question read.)

A. I have not checked the direction of flow on days other than the two days that you mentioned.

Q. Did you——

Mr. Huffman: Just a minute.

The Witness: I requested the information, that is, the orifice meter charts, to enable me to check the direction of flow during different hours of those two days, and was advised that these were not available?

[fol. 2738] Q. Who so advised you?

A. Mr. Phillips.

Q. Mr. Frank Phillips?

A. Mr. Frank Phillips.

Q. On a demand basis——

A. I might add there that Mr. Frank Phillips was the gentleman that was assigned to work with me and to whom we made requests for information, this assignment being made by Mr. Seyffert.

Q. On a demand mileage basis, what provision do you make that each and every engine as necessary is available

4489

[fol. 2739] to supply a continuity of service to Columbus?

A. The provision is made, of course, by the company for reserve power, and each community shares in supporting that reserve power over and above what is necessary to serve its maximum demands. In other words, excess power or reserve equipment under the demand mileage method of allocation is allocated to each community in proportion to their respective demand mileages.

Q. This demand mileage basis does not take into consideration actual pipe lines at all, does it?

A. No, sir, it is an apportionment of the property according to its use.

Q. It does not take into consideration whether one or two or three lines supply the place or whether there are eight inch or twelve inch or twenty inch lines.

A. No, sir, except any excess over and above that is prorated among all on the basis of their demand mileage.

Q. What did you pro-rate to Columbus for this standby service?

A. It is not necessary to pro-rate under the demand mileage system. It is automatically done in determining the Columbus use of the system as a whole.

Q. Well, that is always by short mileage, though?

A. It is by the mileage that gas travels.

Q. No, as I understood your explanation here, it is the shortest distance?

A. Well, that is one and the same thing, isn't it?

Q. Well, I will leave that to you. Have you taken into consideration the average hourly or the average daily peak for your maximum demand?

A. Daily peak.

Q. Well, doesn't the hourly peak vary from the daily peak?

A. Yes, sir.

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[fol. 2740]. Q. And isn't it the hourly peak that must be met?

A. That is correct, and I would have been glad to have considered the hourly peak had I been furnished with the meter readings as requested.

Q. Did you make any demand of me for them?

A. No, sir, I asked Mr. Phillips and he told me that they had been destroyed and were no longer in existence. Now,

I don't believe it would have done any good to have demanded them of counsel or anybody else.

Q. Well, do you know that the Ohio Fuel Gas Company system has been constructed to meet the maximum hourly demand of all communities, as well as the maximum daily demand, and that it takes into consideration the fact that the consumption per customer per hour during the peak hour is in excess of the average hourly consumption during the 24 hour period?

A. That is a very long question. I think I have already testified that the system of the Ohio Fuel Gas Company is designed to meet its maximum demand, whether it be hourly or for ten minutes or for a day.

Q. But your allocation is partly of two days, only, isn't it?

A. Of two days only as checked against a map in the company's possession, showing the estimated maximum demand of the various communities.

Q. Did you check that map for any other days than these two to which you have testified?

A. That map did not refer to any particular days, sir. It was a map hanging on Mr. Phillip's office wall, showing the estimated maximum demand of these various communities.

Q. Won't you answer the question?

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[fol. 2741] A. I answered, the map does not refer to any particular days, but was a map showing the estimated maximum demands for the various communities.

Q. That is your only answer to my question?

A. I think it does answer it. I want to answer your question fully.

Q. You would not mind answering categorically and then explaining? I can understand yes or no, and the explanation sometimes I can not comprehend.

A. Let's see. Maybe I can do better.

(Question read.)

A. That map did not refer to days.

Q. So you can not answer the question? Did you check any records any place at any time to discover the maximum daily or hourly demand on the Ohio Fuel Gas Company system for any other two days than the days to which you have testified?

A. I have just been trying to tell you that I used the map on Mr. Phillip's wall as a check against the two days. Now, that is the only check we made against the two days.

Q. Did you make any check against any other days?

A. No, sir.

Q. On Page 17 of this Exhibit 74, in your allocation here, you have made no allowance of any kind for going concern value, have you?

A. No, sir.

Q. Now, while we are at that page, it is a little bit foreign to the particular line of inquiry that I have been attempting, but I notice the last column there has the figures $7,951,625.00. Now, that is the present value of the property that is allocated, isn't it?

A. I wouldn't say that.

Q. What do you mean by "allocated to Columbus"?

A. I mean on the basis that I have previously explained

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[fol. 2742] that that is the value that I have listed there. I don't agree that Ford, Bacon & Davis, value is correct by a long shot.

Q. It is the rate base you have used; may we agree to that.

A. As explained by me in my direct testimony.

4643

[fol. 2743] J. Paul Blundon testified on direct examination as follows:

Q. Now, directing your attention to City's Exhibit Number 88 and to Page 3 on the subject of allocation of Ohio Fuel Gas Company property, will you please explain that subject matter and the several pages in connection with it?

4644

[fol. 2744]. A. This study is exactly the same as that outlined on pages 16, 17 and 18 of Exhibit 75 previously testified to except——

Mr. Turner: Those are pages of exhibit 75?

The Witness: No, those are pages of Exhibits 74 and 75—except that we have changed the "less adjustments" column to correspond with our study on direct overheads, and have inserted for leaseholds the amount found in Exhibit Number 86, and have changed the adjustment of pro-

duction expense on the basis of the 18.0281 cents shown on Page 2 of Exhibit 88. This results in the fair price for gas at Columbus as shown on Page 7 of Exhibit 88 on a 6 per cent return of 25.5109 cents per M., 6½ per cent return, 25.9943, and seven per cent return, 26.4778 cents per M.

Q. That is the result after taking in all the items you have testified to at different times?

A. Yes, sir, all items.

Q. And is the final figure on the basis of all those items?

A. That is right, yes, sir.

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[fol. 2745] J. Paul Blundon testified on cross-examination as follows:

Commissioner Geiger: On what basis have you made the allocation to Columbus, the value of the property used and useful as applying to Columbus, on a basis of the amount of gas used by Columbus?

The Witness: The allocation was made, sir, of the Ohio Fuel property on several bases for the different classes of property. First, the production property and production expenses were allocated to Columbus on the basis of sales, that is, the relationship between the sales, yearly sales to Columbus and the total yearly sales of the Ohio Fuel Gas Company as a whole. The transmission system property and the transmission system expenses were allocated to Columbus on the basis of Columbus' demand on the two days of maximum demand, weighted by the mileage that the gas is transported, in relation to the total demand weighted by the mileage that the total gas is transported.

The general property was apportioned to Columbus on the basis of property, that is, of the amount of property that had been previously apportioned by the first two named methods of allocation, and the relationship that that bore to the total property of the company in its production and transmission system. Do I make myself clear?

Commissioner Geiger: Yes, you make yourself clear, but I am not sure that that would be a good basis for making that allocation. May I try to get an illustration, in this way, suppose there is a very large manufacturing and distributing company, take Montgomery Ward, take them as

an example, that distributes entirely throughout the United States and have certain economies which run to that large

4702

[fol. 2746] manufacturing distribution. Now, would it be fair to allocate simply the portion of it that would serve Columbus as the value of the property used and useful in serving Columbus? Is that not what you have done in this case, taken a very large property and given the benefit to the smaller portion of the property that is used to serve Columbus of all the economies that that large property is able to enjoy?

The Witness: Of course, that brings in the question, sir, of whether or not those economies that the large company enjoys are for the benefit of the public; in other words, whether that large company is required to give service at cost. If that large company is not required to give service at cost, why then other factors enter into the allocation. I think that the allocation, as made, is made, is substantially correct. It is not correct, probably, to a nicety, but it substantially meets Justice Hughes' opinion in the Illinois Bell Telephone case. If, on the other hand, the wholesale company is not required to account for its service at cost, why that brings other things into the picture.

By Commissioner Bricker:

Q. Justice Hughes has nothing to say about service at cost except in regard to license contracts. He was talking of profits when he was talking about Western Electric.

A. My reference to Justice Hughes' opinion, sir, was in relation to what he had to say as to the allocation of charges between interstate and intrastate business, that it was not necessary or possible to allocate them to a nicety.

Q. You appreciate that this business is still a private business, perhaps with a public function, it is true. If certain economies and efficiencies are introduced into the op-

4703

[fol. 2747] eration of the business should that wholly accrue to the benefit of the public or should not the company be given credit for those efficiencies and economies in making a rate by a regulatory body?

A. In my opinion where its products are eventually subject to regulation, that whole business should be subject to regulation.

Q. That is true, but if there are certain economies and efficiencies which the company puts into practice, should the public be given wholly the benefit of those or should not the company be credited with some of them? Otherwise, you put a premium on inefficiency, you are not giving that urge which we should give and which we should recognize as the regulatory body for business to be efficient, to more economically operate its business and to better its methods and plans. If there is nothing to accrue to them, no credit to come to the company by this better system, what is the prompting urge for an improvement in their business by a consolidation which would make lesser costs?

A. Of course, the whole subject of regulation, without the management, is grossly inefficient, tends to rob it of those incentives, except after they have a rate established, then to economize and lower the operating costs as much as possible. But regulation does tend to do away with that very thing.

Q. Don't want to wipe it out, do you?

A. No, sir, I don't think it should be wiped out, but it is a matter for the Commission to decide just how much weight to give it.

Q. We have got to take that into consideration.

A. Yes, sir.

Q. And we have got to balance it somewhere as to bene-

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[fol. 2748] fits to the public and accruing benefits to the company?

A. Yes, sir.

Q. And your set-up here does not recognize the right of the company to any of them?

A. No, sir, this set-up is on allocations of the property and expenses as it exists.

Mr. Turner: Before we get too far away from it, and Your Honor, Commissioner Bricker has gone back to his original subject, the purpose of my inquiry about this substitute system was based upon the fact that this substitute system takes away from the Ohio Fuel Gas Company its business and establishes it in another way. Now, they will interpret business as gas. Of course, it is still gas business, but it isn't the production business any more. It is simply limiting them to the transmission business from West Virginia, assuming the gas can be bought there at that

price. Now, that was my purpose. And I agree with Your Honor, that it does show the efficiency when they are integrated, and we have some right to some portion of that, and I think there is a value that inheres in this property by virtue of it having been put together, having these economies made possible.

Mr. Butler: Don't you have a duty to perform to do your best?

Mr. Turner: Yes, sir. Among those duties is to prepare against the day when we won't have gas here, there or some place else.

Mr. Butler: When you get the proper legal rate, isn't it your duty to work out all proper economies?

Mr. Turner: Yes, sir.

Mr. Butler: I thought so.

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[fol. 2749] Mr. Huffman: Where have any economies been worked out since the merger of the Logan with the Ohio Fuel?

Commissioner Geiger: I think we are drifting a little bit.

Mr. Turner: You put me on the stand and I don't know anything about it, I can talk freely, too.

Commissioner Geiger: If you give any attention to the claim of the company, which was, briefly, without going into detail, that all of the property of the Ohio Fuel Gas Company within the state of Ohio, irrespective of whether it is a transportation line, a producing line or a well, the whole of it is devoted to the service of Columbus and that the allocation of that portion of it which is used and useful in Columbus should not be on the basis of simply taking a line from West Virginia to Columbus, but regarding the entire operation throughout the entire state of Ohio, as part of the service to Columbus, have you given any attention to that theory?

The Witness: That is exactly what that system that I have outlined does, sir, it allocates that property to Columbus on the basis of the use that the Columbus Gas & Fuel makes of the property of the Ohio Fuel Gas Company as a whole. In other words, it just considers the use that it makes of the big company. It doesn't attempt to say this line or that well or that compressor or this, that and the other is served to Columbus, but it allocates the prop-

erty of the Ohio Fuel Gas Company as a whole to its various users on the bases that I outlined.

By Commissioner Geiger:

Q. Well, wouldn't the correct basis be upon the amount of gas consumed by Columbus as against the amount pro-

4706

[fol. 2750] duced and transported by the system in its entirety?

A. I don't think so, sir, because that wouldn't take into consideration the greater use, we will say, that Toledo makes of the property of the company as a whole by requiring the gas to be transported farther and by requiring the gas to be compressed to a higher pressure in order that it would flow that far, and various other factors.

Q. In other words, you would say that Portsmouth, near the point where the gas enters Ohio, should justly have a less rate than Columbus and that Columbus should have a less rate than Toledo or Cleveland?

A. Yes. Now, that part of the company only applies to the transmission property and the transmission expenses. Now, the production property and the production expenses were allocated on the basis of sales, that is, the number of cubic feet that each consumer uses in the year in the relationship of the yearly sales of the individual user to the total yearly sales.

Commissioner Geiger: All right.

By Mr. Turner:

Q. Following up Judge Geiger's question, I think you have inadvertently given a wrong impression there that you don't allocate property. Now, I think I understand what you were thinking about, but I want to call your attention to the fact, if it be a fact, that you do allocate the transmission property, don't you?

A. Not——

Q. On a demand mileage basis?

A. Oh, yes, we allocate all property, but not separately as like P or line X or line Z to an individual use.

Q. I understand. Let's get at it now, where are the com-

4707

[fol. 2751] pressor stations, in the transmission line?

A. The compressor stations are on transmission property.

Q. And you have allocated the compresor stations on a demand mileage basis, haven't you?

A. Yes, sir.

Q. Now, let's see, suppose we have Columbus here, Sugar Grove or Wheeler here, and Dayton over here. We will assume it is 30 miles from Wheeler to Columbus and we will assume it is 60 miles from Wheeler to Dayton. Let's cut out everything and make it simple, let's assume that the demand mileage basis is being used now and there is no other business for the moment except these two markets, Dayton and Columbus. On your demand mileage basis you allocate 33 1/3 per cent of this Wheeler station to Columbus and 66 2/3 per cent of it to Dayton, do you not?

A. Of the transmission property, yes, sir.

Q. Yes, sir, and that includes the Wheeler compressor station?

A. That is right, the line between the two points and all the transmission property.

Q. You think that reflects a fair condition and a fair treatment of the two cities?

A. Yes, sir.

Q. Yes, sir. The Wheeler station is not located at the source of supply, is it?

A. No, sir.

Q. How far is it from the wells, do you know?

A. I could look it up for you on the maps.

Q. Well, approximately, can you give it to me approximately, 50 miles?

A. Oh, it is closer than 50 miles to the wells.

Q. Well, I mean to the source of supply. Let's draw a circle of their property that goes to that compressor station and put a pin in the middle of it.

A. I wouldn't want to do that without going back and

4708

[fol. 2752] looking at all the data in regard to it, but the wells are a whole lot closer than 50 miles to Wheeler.

Q. But I have correctly portrayed the allocation by you of the transmission system on a demand mileage basis between Columbus and Dayton?

A. Yes, sir.

Q. And you think it would take twice as much for Dayton as it would for Columbus?

A. Certainly, they have twice the lines to maintain and twice the investment in pipe, the demand is the same.

Q. And how about the investment in this Wheeler station?

A. It would take perhaps two-thirds of that to serve Dayton, not quite in correct proportion as the lines.

Q. Doesn't Columbus use more gas than Dayton does?

A. You are making the assumption, sir, that they all—I understood on the same demand, if you are doing this entirely on the mileage, otherwise one-third and two-thirds are wrong.

Q. Let's do it on mileage first. Assume the demand over here is one-half of the demand in Columbus, what is your allocation?

A. If you don't mind, mark them one and two, will you please, sir?

Q. All right.

A. In that case it would be one-half to each.

Q. One-half to each?

A. Each would have the same amount of transmission property and transmission expenses. Now, Dayton would have one-third of the transportation property and the transportation expenses and Columbus would have two-thirds of the transportation property and two-thirds of the transportation expenses.

Q. All right, are you through?

A. Yes, sir.

4709

[fol. 2753] Q. Now, let's take another situation. Here is Springfield up here. The line that supplies Springfield goes over to Dayton and up to Springfield, does it not? It starts out on the Dayton line and goes to the Charleston cut-off. It should be stated this way, that the gas starts out of Wheeler in the same line as the Dayton gas, and that the Logan-Howells probably turns off there or south. Look at Z-10. Gas for Springfield goes out of Wheeler on Z-10, does it not? Z; it is a 10 inch line, Z line, 10 inch line.

A. This map seems to say so, sir.

Q. Sir?

A. I say this to say so.

Q. Seems to say so. What is your knowledge of it?

A. I wouldn't like to say without referring to our property maps. All our allocation data was made from your property maps and I don't want to give any testimony which would contradict my testimony in the allocation which we made direct from the inventory maps.

Q. You had access to the inventory maps?

A. Yes, sir.

Q. And you made your allocation from them?

A. Yes, sir.

Q. And not from this little map which was attached to Mr. Phillips' exhibit 23?

A. Except for some few figures we took from Exhibit 23.

Q. I am just wondering how you can justify a 25 per cent spread between Springfield and Columbus on your allocation method?

A. I can't answer that question because I don't know that we justify any such spread, or whether you are talking just about transmission expense, or——

Q. No, I am talking about rates now. Your system works out a rate for Columbus of 23.81 cents. Your same system

4710

[fol. 2754] works out for Springfield, 32.58 cents. How do you justify that spread in those towns so close together?

Mr. Davies: Did he ever testify to that?

The Witness: You are talking about something I didn't testify to in this case.

Mr. Turner: If you will listen to the question, I will have it read for your benefit, Mr. Davies.

(Question read.)

The Witness: I made no calculation for Springfield, sir.

Q. I understand you didn't, but you furnished us your working papers, did you not?

A. Yes, sir.

Q. And we will ask you to check us and see if your rate for Springfield, Ohio is not 32.58 cents.

A. I would have to wait and do that checking before I could answer your question.

Q. I would ask you to do it, if you please, not now, but during the day.

A. It takes pretty near a day to do it.

Q. How many measuring stations did you use in Columbus upon which your demand figures were based?

A. I count 10 here, sir.

Q. You use 10 different measuring stations?

A. Yes, sir.

Q. Well, I would ask you to please figure out for us the rates at each one of those 10 different stations in Columbus, on your demand mileage basis?

A. You understand that is a calculation that can't be made here on the stand in a minute or two.

Q. I understand it can't be made on the stand. We would like to have you make it.

A. All right.

Q. How many measuring stations did you use at Spring-

4711

[fol. 2755] field, Ohio?

A. That is wholesale sale of the company at Springfield, is it not?

Q. Yes.

A. That is sold to the Dayton Power & Light at Springfield?

Q. No, Springfield gas.

A. Oh, now, what was the question?

(Question read as follows: "How many measuring stations did you use at Springfield, Ohio?")

A. Two, Selma and West End.

Q. Sir?

A. Selma and West End.

Q. Selma and West End. Where does the Selma gas come from?

A. Selma through line B, Z-50, Z-62, from Homer Station.

Q. And where does the West End come from?

A. Wheeler.

Q. Wheeler. What is the demand mileage that you have used from Homer to the Selma measuring station?

A. The demand mileage or the mileage alone?

Q. The mileage alone?

A. Selma 71.404.

Q. And what is Wheeler?

A. 79.942.

Q. In other words, it is farther from Wheeler to the West End than it is from Homer to Selma, is it not?

A. Yes, sir.

Q. I will ask you to figure out at noon and see if you haven't for the longer distance a rate at Springfield on your allocation of approximately 11 cents spread in the two measuring stations in favor of the shorter distance?

A. I couldn't do that at noon time, sir. It would take at least a day.

Q. Take at least a day? What I want to warn you is that we want to present those and you be prepared to say we

4712

[fol. 2756] have made some mistakes. The allocation you have made would require rates to be made by the Ohio Fuel Gas Company at the gates of various municipalities in the state, according to the figures that our engineers have made from your working papers, of from 16.75 cents at Bay Village, to 98.14 cents at Toledo. Now, we will give you the opportunity of checking that so that when we put our evidence in we can point out where it is wrong.

Commissioner Geiger: Where is Bay Village?

Mr. Turner: Up near Cleveland.

Commissioner Geiger: It is part of Cleveland?

Mr. Turner: It is part of Cleveland. Well, all right.

Commissioner Geiger: You mean to say that they have between 16.75 and 98——

Mr. Turner: 98.14.

Commissioner Geiger: And what is the distance of the village from the source of supply?

Mr. Turner: That is the answer. It isn't source of supply. They have taken a compressor station, not a source of supply. I will go into that this afternoon. They have taken a compressor station and not a source of supply.

Q. Do you assume, Mr. Blundon, that with these spreads in rates that would have to be charged by the Ohio Fuel Gas Company to get the same amount of money for gas throughout its system, that is, to get a lump sum, that they would have the same amount of consumption, or wouldn't the consumption be affected?

A. I couldn't answer that question, sir, without going into your existing rates and gas charged for now and a dozen other matters.

4713

[fol. 2757] Q. I am not talking about existing rates, now. Let's see if we understand each other. Suppose we had a 98.14 gate rate. That would take probably $1.20 anyway rate in the city of Toledo.

A. I don't agree with you on that.

—. Well, I know you don't agree with me, but whatever you put it down, you can get it down to a nickel if you want to, would you think that the company would sell as much gas in Toledo as it does now?

A. That is what I couldn't go into without I knew the rate in Toledo now.

Commissioner Bricker: You wouldn't have to study very long on a proposition that if the price was high you wouldn't sell as much to the consumers as if the price were low?

The Witness: That is correct, yes, sir. And if the price is made lower, there would be——

Commissioner Bricker: There would be more consumed than if the price were higher?

The Witness: Yes.

Q. Bay Village would take enough to offset Toledo, wouldn't it?

A. I wouldn't say that.

Mr. Huffman: I don't believe that is absolute. I think some records have said that up to 72 or 75 cents there would be no difference.

By Commissioner Bricker:

Q. Have you made any calculation at all as to what a reasonable gate rate would be upon the sales basis alone?

A. No, sir.

Q. Would it be a comparatively easy task to do that?

A. Yes.

Q. The company is here with the contention that the only allocation is upon the basis of sales. We want to meet that

4714

[fol. 2758] if we can. I would like to have your figures on that upon your valuation of the Ohio Fuel Gas, if it would be possible to work it out.

A. All right, sir.

By Commissioner Geiger:

Q. Would you be able to answer this question after some consideration? Assuming that the Ohio Territory as is now served by the company draws its gas from various wells throughout the state of Ohio and that it receives its supply through pipe lines that are not leading directly to the city that is served, what if anything would be the objection to regarding Ohio as a consumer's field and fix one price for any gateway within that territory, what would be essentially wrong about that, whether or not the field is too big, the distances too far to fix practically the same gateway price at any point within the state of Ohio based on the assumption that all the gas is not transported from West Virginia, nor is it secured from the southern part of the State of Ohio, but some of it is secured from the northern part of the State of Ohio, based also on the assumption that no city may be served directly and exclusively by any transportation line but that all the entire system is in use in serving all consumers within the state? Do you get my question?

A. I get your question, yes, sir. I think it would be unfair to make it a flat rate in its entirety throughout the state. I think it might be possible to arrange a grouping of three or four groups, we will say, from towns within zero to 50 miles, 50 to a hundred, a hundred to 150 miles of the gas field, the gas has to be transported that far to them, arrange a grouping of rates based on the proportion of the extra investment, extra expenses that those farther

4715

[fol. 2759] away from the field require?

Commissioner Geiger: All right.

4726

[fol. 2760] Q. I hand you what has been marked Company Exhibits 161-a to 161-u, and will you kindly tell us which ones of those, if any, you did not use in your allocation?

A. Several of the sheets of figures——

Q. Identify them by number.

A. Which you mention as Exhibits 161-a to u, inclusive, contain figures that were not used directly in the alloca-

4727

tion, that is, that are neither demands nor mileages, but which contain a portion of your contract purchases and contain meter readings at your line check stations.

Q. Let me ask you this. Don't those papers reflect an attempt by you to make an allocation on a basis which had to be abandoned?

A. They do not, absolutely and positively.

Q. Now, you pick out any one of those papers, those working papers, that can be traced into your final result by as engineer?

A. The working papers——

Q. Just name them and call their numbers there.

A. There are no figures in these exhibits that appear in my final result. The papers referred to are meter readings taken by us in order that we could check the flow of gas as much as was possible from the company's records. In other words, it was necessary to know the amount of gas that was purchased at various points on the company's lines, in order to get the mileage that was used for the distance for which the gas was transported.

Q. If your answer is correct, then show me the place that it comes out in your final working papers where that data was used——

A. I told you that this data we have here was to inform ourselves as to the use of the syster, and it does not appear as either a mileage or a demand.

[fol. 2761] Take Exhibit Number 161-h, and it is only typical, I think of other ones, and calling your attention to one of several lines there, where you have the actual deliveries for a week, why do you divide them or multiply them by one and one-sixth?

A. The exhibit that you refer to is a sheet of contract purchases measuring stations and has no reference to the de-

4728

[fol. 2762] mand of the various communities. In several instances where daily meter readings were not available, it was necessary for us to prepare a study as to the amount of variation of the maximum day from a maximum week. In other instances, it was necessary for us to prepare a study as to the relationship between the maximum day and the maximum month. We prepared this study from your experience here in Ohio and as a check on it, prepared one

from the experience of the United Fuel Gas Company in West Virginia.

Q. Where did you find any experience here in Ohio upon which that was based?

A. By taking places where you had daily meter readings and established the relationship between a maximum day in a maximum week.

Q. We would like to have you, as soon as convenient, get us the data on any of them and give that to us. That would be more helpful than these papers here that do not tie in. Why did you use one-sixths more?

A. Because from the figures we analyzed, it showed the maximum day was about one and one-sixth—I don't think that is the exact figure we used, though, Mr. Turner—we determined by analysis of your figures that the maximum day was 116.66 per cent. of the average day, on an average throughout the system.

Q. Why multiply this by one and one-sixth?

A. Because I wanted to get the maximum day.

Q. For how many days would one and one-sixth apply?

A. For the maximum day.

Q. No, no, there is another catch in there that I want you to explain to the Commission. You know what it is?

A. Just for the one day.

4729

[fol. 2763] Q. How many days did your apply the one-sixth to?

A. Just the maximum days.

Q. Well, suppose the meter was for seven days, what factor did you multiply by?

A. The maximum day would be one and one-sixth of the average day.

Q. If the meter reading were eight days, what did you multiply by?

A. By the same factor.

Q. No, you didn't. Look at your own working papers.

A. These papers did not go into the demand in any event.

Q. I am glad you are getting at that, because we will show them in your demand pretty soon. If it were eight days, you multiplied it be one and one-half, didn't you?

A. I couldn't say that, no sir, without checking these figures.

Q. Well, check them?

A. They are all seven or thirty-one day periods.

Q. Take a thirty-one day period.

A. For a thirty-one day period, we took a maximum day as being five per cent. of the month.

Q. See if you haven't got it somewhere where you multiply it by one and one-half. I didn't think I was asking a question that would take so long.

A. I am checking up this sheet.

Q. Checking the whole sheet?

A. Yes.

Q. I can give you lots of them.

A. All right. The statement that I have previously made is correct, that where the meter reading was a weekly meter reading, we took the maximum day as 116 per cent. of the average day, that where the meter reading was monthly *meeting*, we took the maximum day as five per cent. of the monthly reading. The attorney is probably misled in that they were carried out for daily averages,

4730

[fol. 2764] regardless of whether the meter reading was for a weekly reading or for a monthly reading. But the column headed maximum demand, in every case shows the figures I stated above to be correct.

Q. You do say then that in no place did you use one and one-half for eight days or more.

A. If it was, it was an error, sir, not as a principle; it does not appear on this sheet.

Q. I will show you some other sheets in a minute. Do you want to correct the statement we understood you to make a little while ago, that the purpose of these exhibits 161-a to u, inclusive were made for the purpose of obtaining the directional flow only?

A. Directional and quantity.

Q. Directional and quantity?

A. Yes, sir. They were not made for the direct purposes of allocation, and no change in the method of allocation was made hence the figures were started. Before starting them, we considered several methods, but once we started and obtained the figures, we did not make any change in the method of allocation.

Q. That was a feeling out of a way to make an allocation?

A. We considered several ways of making them.

Q. You could not find the answer to that that way, could you?

A. We did not apply these figures, and these figures were obtained after we had decided on a method.

Q. What did you obtain them for?

A. To check the quantity and the directional flow of gas. For instance, you would have a line with a 200 people and several contract purchases measuring stations along there. The question was, did enough come from those stations to supply the town? Another question for instance that that

4731

[fol. 2765] decided was to show that the same quantity of gas, or approximately the same quantity of gas, was in T and T-50 after it crossed Line B as there was prior to crossing Line B.

Q. Do you see any analogy in the use of your figures there to the use by the Ohio Fuel Gas Company of the consideration of figures that were placed in the original exhibit and then blotted out and not used?

A. I don't understand your question. What original exhibit do you mean?

Q. You have introduced an exhibit here in this case yesterday, based upon consideration paid for leaseholds, and you said you used certain company exhibits that had been given to you. One of those had the column consideration in it and was never completed, never used by the company. It is blotted out here. Now, is there any analogy to your starting something that was not finished and their starting something that was not finished?

A. I don't know what you are referring to, Mr. Turner. I stated under oath we decided the method we were going to use before we made these figures.

Mr. Huffman: We can not guess what the question means.

Commissioner Geiger: Oh, yes, you can. The company has been criticised for submitting an exhibit with a certain portion of it blotted out. Now, Mr. Turner wants to know if there is any difference in that and these figures which were not used in the final valuation.

Mr. Turner: It is put much better, so much better, that I could put it, but that is what I wanted to get at.

Commissioner Geiger: Of course, his answer was that you concealed it by blotting it out, and he has it here for

4732

[fol. 2766] inspection.

Mr. Turner: No, no. We called for it, but the answer is, we did not conceal it at all. We did not offer it. It was not concealed.

Commissioner Geiger: That was not my statement. It was theirs.

Mr. Turner: All right.

Q. So that these exhibits here, 161-a to 161-u may be abandoned for the checking of your allocations?

A. Oh, no.

Q. Then tell us again.

Mr. Davies: He has told you two or three times.

The Witness: I told you a dozen times.

Mr. Turner: Well, I am dumb, John, and you are smart.

Commissioner Geiger: Do you mean to say those figures you have from a to u are figures that you made for the purpose of checking some other figures that you actually used to ascertain whether they were correct or not?

The Witness: That is the point. The figures that are in Exhibits 161-a to 161-u are the line check measuring station records of the company, and a portion of their contract purcheases measuring station records. At certain points on their system, they maintain meters to measure the flow of gas in their lines. Not to sell to somebody, but at various points to measure the amount of gas that is passing. Of course, they keep them records of all meter stations where they pass gas, and in making this allocation, it was necessary to know how much gas entered the system at various points. That is what this is.

Q. Now, where do they tie into any figures that you have

4733

[fol. 2767] submitted as your working papers on your allocation?

A. I have explained that, sir, in that they tie in where several of these smaller towns, smaller communities, are located very close to contract purchase stations; gas flows in the line from these contract purchase stations, and the mileage that we used for them was the mileage that the gas

actually flowed. That is where it is necessary for us to know the amount in there, so that we could see that enough came in there to supply the community on that particular maximum day.

Q. Did you take into consideration the fact that the purchased gas was shut in all summer?

A. The days we considered in our allocation.

Q. You can answer that yes or no and then explain. I want a categorical answer. Did you or did you not?

A. We did not. The days we used for our allocation were January 13th, 1929, and January 23rd, 1930.

Q. Then why did you multiply Columbus by one and one-sixth?

A. I don't understand your question.

Q. All right. Strike it out. I won't strike it out, but we will let it go. I hand you what has been marked here as Company Exhibit Number 162, which is one of the working sheets you handed us. Was that a work sheet used in getting at you- allocation?

A. That appears to be, yes, sir.

And thereupon the work sheet above referred to was marked for the purposes of identification as Company's Exhibit Number 162.

Q. All right. Then if you will look at the eighth line from 4734
[fol. 2768] the top, Dayton Power & Light, Sedalia, I will ask you if you haven't got an eight day reading there, and if you do not multiply it by one and one-half to get your correction for maximum demand, isn't this a photograph of your sheet?

A. No, sir, I am going back to the work sheet of that. That has a note after that, ten added for rurals.

Q. Didn't you give us all of the work sheets?

A. Yes, sir, you have got a copy of this, too, that I am referring back to. The maximum demand shown under the column of maximum demand is five per cent. of the monthly averages shown in the next column preceding it.

Q. Five per cent.?

A. Yes, sir.

Q. And not one-half of one per cent.—not one and one-half times.

A. It is the average percent. of the monthly readings. I explained that previously.

Q. You say that the Sedalia figures here on Line 8 are multiplied by a five per cent. factor for a thirty day reading?

A. It is five per cent. of the monthly reading, that is, five per cent. of the 1333 shown in the next to the last column.

Q. That is true also down at West Carrollton where you have 15 days?

A. Let me see. That is correct. West Carrollton, maximum demand for that year was taken at 214, which is five per cent. of the four thousand two hundred and seventy-eight appearing in the next column over there to the 214.

Q. We have to prove these. And your explanation would be the same on all of it, would it?

A. Yes, sir. The sheets are self-explanatory.

Q. That is what I thought.

Commissioner Geiger: What is the basis of your maxi-

4735

[fol. 2769] mum day being five per cent. of the monthly maximum?

The Witness: The basis of it is, first, an analysis of our figures in this case where we had the daily meter readings and a similar analysis made on the United Fuel property where we had the daily meter readings, and also the company's practice. They have a map showing the demands of all these various communities, and that is made up on the basis of five per cent. of the maximum, that the maximum demand is apt to be about five per cent. of the month.

Commissioner Geiger: Is that the result of experience?

The Witness: It is the result of experience.

Q. Are you testifying it is the result of this company's experience?

A. I am testifying as far as I am concerned as to my own experience. This map, they tell me, is made up on that basis. We have several copies of it.

Q. You took that map and were told that it did not correctly represent the maximum demands and was only for the use in routing of gas?

A. It was not for the purpose of routing gas, and was made up on the maximum day being five per cent. of the maximum month.

Q. The mere estimate for the routing of gas?

A. An estimate for operating their system.

Q. Not for getting the maximum demands as you have done it here at all?

(No reply.)

Commissioner Geiger: It is not the result of a long series of experiments. It is a convenient figure. It would be almost incomprehensible to think as a result of experience it would come out five per cent. That would be very unusual.

The Witness: That is true, but it is about true as an aver-

4736

[fol. 2770] age. In other words, certain towns I may look at for a certain year will be a little under five and some a little over five.

Q. You said similar experience was found in the United. Tell the Commission just what it was. You obtained it. You know all about it.

A. The average of the United in 1928 was 5.14 per cent.

Q. Is that divided by 1.25?

A. Sir?

Q. Didn't they multiply by 1.25 in that allocation to get the demand?

A. I don't recollect.

Q. You don't know, do you?

A. No. I probably did know it.

Q. Let's be frank?

A. No. I won't say it.

Q. I will ask you if the only experience of the United did not come from the Kermit Station down near Williamson and was a test made there on that one station alone?

A. Oh, I don't know about that.

Q. What do you say about that?

A. These United figures I am talking about show an analysis of their figures that I made from their meter readings which were furnished you for the year 1928. You see practically all of the United meters are daily meters, where it is possible to go into that deeper than was the case of this company.

4739

[fol. 2771] Q. Are there any figures on your sheets that reflect total sales?

A. Total sales for the basis on which the production property was allocated were furnished to me by Mr. Allensworth and he testified to them here. I did not investigate the total sales.

Q. Are there any sales for the maximum days that you have worked out?

A. Sales for the maximum days?

Q. Yes.

A. Yes, sir, we have all of that.

Q. Did you divide your total maximum demands into the total sales of the day upon which the demand was obtained?

A. No, sir.

Q. In other words, you constructed these demands and then divided them into the total sales of the year?

A. No, sir.

Q. What did you do?

A. We determined the maximum demands, and weighted 4740

[fol. 2772] that demand by the distance that the gas was required to be transported.

Q. Then what did you do?

A. That gave a demand mileage factor that was summed up for all of the users of the Ohio Fuel Gas Company system, and then that total divided by the corresponding demand factor for the Columbus area, which determined the percentage of property applicable to Columbus on the basis of demand mileage.

Q. What amount of gas did you use?

A. Total demand?

Q. Total demand?

A. 51,147.

Q. Cubic feet or M. c. f.?

Commissioner Geiger: What do you mean by 51,147? Is that million or per cent.?

The Witness: That is the demand on a maximum day.

Commissioner Geiger: What is it? What are you talking about?

The Witness: Demand—M. cubic feet.

Commissioner Geiger: Oh, that is all right, demand, thousand cubic feet.

The Witness: Yes, sir.

Q. Did the company sell that much gas on that day?

A. To the Columbus Gas & Fuel and the Federal Company, yes, sir.

Q. Oh, I wasn't talking about that. We haven't got to the Columbus Company yet at all. We have been talking about the whole system.

A. I certainly don't understand you then. I thought you wanted to know how we applied this to Columbus.

Q. I am trying to find out how you applied it to the whole system.

A. We will start again, sir.

Q. All right.

A. I will try to answer your question.

4741

[fol. 2773] Q. In other words, it looks to me, not an engineer, that you have obtained certain demand factors, and then, instead of using the actual sales for your demand day, you have taken the actual sales of the company for a year and gotten at it that way; in other words, you are dividing a hypothetical figure into an actual figure. Now, I am trying to find out why you didn't set up, not only the demand, but the actual production or sales of the company for the day and divide it into that figure? I may be wrong, but it seems to me——

A. I can answer that right offhand, that the yearly sales play no part in the allocation of the demand mileage basis. The yearly sales are used in the allocation of production system property.

Q. I did not get through with West Virginia. I asked you about the experience of West Virginia with this 1.25. That was the figure they used to multiply down there.

A. I told you I didn't recollect it.

Q. You didn't recollect that that was gotten from one day's experience down at Kermit, either, did you?

A. I didn't recollect that, either.

4741

[fol. 2774] Q. Have you got your Zanesville figures?

A. I have a description of what applies to Zanesville.

Q. Now, at the expense of repetition, but just so that we get started here, in getting your demand mileage for Columbus, you did not go back of the compressor station at Wheeler, did you?

A. No, sir.

Q. Now, in getting your demand mileage at Zanesville, you went back to how many compressor stations?

A. We didn't go back to any. The gas from Zanesville comes from three different sources or three different direc-

4742

tions. Part of the gas comes from the east over Line O from Hagan, Elk, and Westland Station; part of it comes from local stations to the north on Line N; part from the southwest over Line H from Crooksville, Malta, Gore, and Wheeler Stations, and the average is computed on the work sheets. The gas from Hagan-Elk and Westland and those stations comes in through H, H-109, H-118, H-86, Line O.

Q. Where does the gas that comes to Columbus come from back of Wheeler?

A. Back of Wheeler?

Q. Yes.

A. Why, it comes into Wheeler from several sources.

Q. Just what are they? I am trying to get your same explanation that you have just given for Zanesville for Columbus?

A. The explanation at Columbus is that it comes from Wheeler and Homer.

Q. Where does Wheeler and Homer get it?

A. From a variety of sources. The biggest part of it probably comes through from West Virginia.

Q. Did you figure any of the West Virginia line in your demand mileage basis?

A. No, sir.

[fol. 2775] Q. You know if you do figure just that one line down to Ravenswood, you would have gotten 25 per cent. demand instead of about 10 per cent.

A. I would not say that, no, sir.

Q. We will ask you to figure it out, because we will present it; and if you had done the same thing for Columbus on the Wheeler Station that you did for Zanesville, you would have gotten a much higher demand factor for Columbus, would you not?

A. Zanesville was figured on exactly the same principle as Columbus.

4743

[fol. 2776] Mr. Turner: All right, we will let the engineers fight on that.

Q. Now, I want to go back to this Exhibit 162 again, and before asking questions on that I want to have 163 identified.

Mr. Davies: What is that? A working sheet?

Q. That is one of your working papers, is it not?

A. Yes, sir, it appears to be.

And thereupon the work sheet above referred to was marked for the purposes of identification as Company's Exhibit Number 163.

Q. Now, take this figure, total sales, 16,753,420; is that right—.41?

A. That is right. That is the total demand mileage factor, which is entered opposite total sales and under demand miles.

Q. Now, you build that up from these sheets such as company Exhibit Number 162, do you not?

A. No, sir, that is built up from the other work sheets to show the maximum demand used and the mileage.

Q. I think we can get at what I want. Now, I want to go back to this eight days again. You told me that I was wrong, and that is not strange, but let us see if I was wrong about it. Let us see if I did not understate it instead of overstating it. You have taken eight days demand there, which was 342; that is correct, is it? The total demand for eight days is 342.

A. The reading for eight days from January 1st, 1930, to January 29th, 1930, was 342—332, and we added ten for

[fol. 2777] rural in there.

Q. Then you multiplied that by thirty or thirty-one, which? You first divided by eight and then multiplied by thirty-one, didn't you?

A. I didn't say that yet, sir. It is divided by eight and multiplied by thirty-one.

Q. You got 1333?

A. Yes, sir.

Q. Now, you divide 1333 by 20; that will give you five per cent., and that gives your answer, 67?

A. Yes, sir.

Q. Now, let me ask you if that is not equal to multiplying the demand by 1.56?

A. What demand are you talking about?

Q. Your average demand for those eight days, or for one day.

A. That is correct, yes, sir.

Q. In other words, I was under-stating it instead of over-stating it?

A. No, sir, you stated it incorrectly.

Q. Of course, that was incorrect by saying it was only 1½.

A. No, in that case we took five per cent. of the monthly reading.

Q. Which gives a 1.56 multiplier in that case, doesn't it?

A. I don't understand what you are driving at.

Q. Well, you are an engineer, aren't you?

A. Yes, sir.

Mr. Butler: You mean five per cent, of your thirty day period would give you 1.56 of the average of an eight day period?

Mr. Turner: Yes, sir.

Q. Thus you built up the total sales on this sheet, 163, by that method, did you not?

A. No, all of them are not built up by that method. The total of the demand mileages, as we have arrived at the demand mileage factor, is the sixteen million figure 4745 [fol. 2778] shown on 163.

Q. But that is the sum of these other results obtained by the use of the formula to which you have referred?

A. Very few eight day reading periods, and that is very much an exception and a very minor factor.

Q. Anything over seven days in your working sheets if figured that way?

A. All figures for meter readings over seven days are taken at five per cent. of the monthly reading.

Q. Now, if you had taken that process for Columbus, you would have gotten a much larger demand for Columbus, wouldn't you?

A. Columbus we had the daily readings.

Q. Take eight days and figure it out and see if you don't get a very much larger demand for Columbus.

A. You probably would. The point in reference to that is this, that for all of the large consumers you had daily readings. The adjustments that we had to make were made for the relatively small consumers, where no daily readings were available, and where the correction factor played a very minor part in the whole situation.

Q. What if your working papers show that where you did have the readings, you have made such multiplications?

A. I don't think so, sir.

Commissioner Bricker: Did you have daily readings in Toledo, Dayton, Cincinnati, Springfield and Zanesville?

The Witness: I will get the sheets and see. We had whatever readings they had, of course. We had daily readings on the sales to Point Pleasant Natural Gas Company, daily readings on the sales to the Ohio Electric Power Company——

Mr. Turner: What Mr. Bricker is asking you about is

4746

[fol. 2779] Toledo and Dayton.

The Witness: I understand that. We will get to those. I would prefer to furnish you with a list of those where we did have daily readings. I would have to go through 1929 and 1930, both—practically through the whole of the papers.

Commissioner Bricker: If you did have daily readings in these other cities, you used the same method in combining your gross, or your bulk demand for the purpose of fixing the allocation that you used in Columbus.

The Witness: Yes, sir.

Commissioner Bricker: But if you did not have the daily readings in those other cities, you used the thirty day period.

The Witness: We had to use the thirty day or the weekly, which ever we had.

Commissioner Bricker: Every one of them would likely given you a larger gross than you would have gotten by the other method?

The Witness: No, I don't think so.

Commissioner Bricker: You don't think so?

The Witness: I think it would average up on the whole property all right.

Commissioner Bricker: You think it would average about the same?

The Witness: Yes, sir. For instance, this one we have been talking about, the maximum demand is 67,000 feet a day, 67 M, which is relatively small.

Q. What does distance have to do with that, if anything?
A. Distance to Dayton?
Q. What did you use in Columbus? What figure did you

4747

[fol. 2780] use in Columbus in 1929?

A. As I testified in my previous direct or previous cross-examination, several changes were made in the Columbus method of measuring gas between 1929 and 1930. The changes are that——

Q. Let us get an answer to the question.

Mr. Davies: Let him answer the question.

Mr. Turner: I am asking the questions and I want answers to them.

Mr. Davies: You are getting them.

Mr. Turner: Not at all.

(Question read.)

Q. (Continuing:) One and one-sixth or the five per cent. method?

Mr. Davies: Well, finish your question then.

Mr. Turner: That is what we were talking about.

The Witness: There are practically no 1929 figures used for Columbus. I previously testified I believe that with the exception of one or two, all of them are 1930 figures.

Mr. Turner: Mark this Company Exhibit Number 164.

And thereupon the paper writing above referred to was marked for the purposes of identification as Company Exhibit Number 164.

4748

[fol. 2781] Q. I will hand you what has been marked as Company Exhibit No. 164, and ask you if that is not for 1929 and does not contain 11 stations in Columbus, your figures on them? Please don't mark that up. You can tell by looking at them, but do not mark them up.

A. It shows 10 stations, but by referring to where this sheet is carried forward in the consolidation for Columbus, it shows that 1, 2, 3, 4 of these stations were abandoned. And there is another work sheet further along than the

one you refer to as Exhibit 164, which shows how your stations in Columbus were used and just how the demand for Columbus was figured.

Mr. Turner: Mark this Company Exhibit No. 165.

And thereupon the paper writing above referred to was marked for purposes of identification as Company Exhibit No. 165.

Q. I hand you what has been marked Company Exhibit No. 165, and ask you if that is part of your work sheet?

A. It is. It appears to be. It appears to be a copy of it.

Q. Is that the one you furnished us as a copy? I don't know whether it is a copy.

A. I don't know whether it is or not. I don't think it is. We furnished you all positive proof, as I understand it.

Q. All right. Give us the positive proofs. Did you furnish me a copy of your work sheets?

A. I furnished a copy of my work sheets to the attorneys.

Q. Identical to the ones you are using right now?

A. Yes, sir.

4749

[fol. 2782] Q. No change in those from what I have here?

A. I have not changed my work sheets.

Q. I wanted to know whether or not your work sheets are identical with these pages here?

A. I could not tell you without checking them, sir.

Q. Let me substitute then and have this marked 165. Now, is this the sheet you furnished us? I am handing you 165 and ask you if that is the sheet you furnished?

A. It appears to be one of our work sheets.

Q. You stated here in your testimony that you took the 1930 figures for Columbus, that is, the one day in 1930; at least I so understood you?

A. I said with a certain few exceptions.

Q. Now, answer the question with that work sheet before you, and tell us what days you did take it and how you got it and what computations were made to get it.

A. The maximum demand use in determining the demand mileage for Columbus was arrived at in the following manner——

Q. Have you got your sheets so that I can follow you?

A. No gas was considered from the Ardmore station as it had been discontinued in 1930. The gas considered at the

Arlington station was the average of the 1929 and '30 figures. The gas considered at the Baker Hill station was the 1930 figure. There was none there in 1929.

The Cassidy Station was abandoned in 1929, and no flow recorded there in 1930, and it was not considered.

The McNaughton Road Station had no records for 1929 and we considered its 1930 demand.

The Cleveland Avenue Station was in existence in both

4750

[fol. 2783] 1929 and 1930, and we considered the average.

The Eastmoor Station had been abandoned after 1929 and was not in 1930, and we did not consider it.

The Groveport Pike Station was in existence in both 1929 and 1930, and we took the average.

The Hague Avenue Station was in existence both in 1929 and '30, and we took the average.

The Columbus, Linden Station had a very small reading in 1929 and a much larger reading in 1930. We took the 1930 reading.

The Columbus, Weber Road Station, we took the average between 1929 and 1930 readings.

The South Columbus readings we considered the average of 1929 and 1930.

The St. Mary's Station was abandoned between 1829 and 1930 and was not considered.

The Columbus Tulane Station we took the average between 1929 and 1930.

Q. Are you through? Why did you take the 1930 rather than the 1929 demand at Linden?

A. Because the 1930 demand was about eight times as much—the 1930 demand was eight times as much as the 1929 demand, and rather than to have any question about it, we thought we would put it in and charge it to Columbus.

Q. The average or the figures for '29 were 25 and the figures for '30 were 10, and you got the average of those two figures, did you?

A. Yes, sir.

Q. Which represent no maximum demand for either time, does it?

A. No, sir.

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[fol. 2784] Q. And you struck out entirely the Eastmoor maximum demand and did not use it at all, did you?

A. Because no gas was being used there in 1930.

Q. There was in 1929?

A. There was in 1929, yes, sir.

Q. You were measuring the 1929 and 1930 throughout the rest of the state, weren't you?

A. We are using 1929 and 1930 to determine a maximum demand, that is apt to be made on the system. I might explain that answer a little further by saying that the sum of demands as measured by the 1929 meter reading, was 37,657. The sum of the maximum demands at all stations as measured in 1930, was 52,843, and that the figure we used was 51,147.

Q. Yes, but how about distances? On your demand mileage you cannot get an answer that way without considering the distances, can you?

A. I think I could safely estimate sir, that if we had taken the demand mileage on the 1929 basis, there would be a great deal less than the demand on the 1930 basis.

Q. Was the route the same in '29 and '30?

A. No, sir.

Q. Mr. Blundon, as I look at your work papers here, you get at two different measuring stations in Springfield a widely different price; at two different measuring stations in Piqua, located only a very short distance apart, coming off of the same line, you get much larger differences. Now, I cannot see why you can average these figures here and your demands and not have to take into consideration your mileage.

A. I was just considering demands, because I could make that calculation relatively short. The distances or mileages do not vary greatly, in the Columbus area, with the exception of McNaughton Road. The rest of them are all from

4752

[fol. 2785] 31 to—Hague Avenue is 39—31 to 39.

Q. That is just what I am getting at in your figures as we see them and read them; even though the gas be hauled a shorter distance to one of the measuring stations at Springfield, you get a higher price, or a higher price is obtained by the use of your method. That led me to ask you to produce the figures for each of these Columbus measuring stations, rather than your average, and you have promised to

do that. So we will pass that on until you have brought them in. But it seems to me to produce different figures at different stations along the line.

A. It will produce a different price the further the gas is transported.

Q. I have in the case of Springfield from Selma, or you have, 71.40, and you get a rate for Springfield from that measuring station of 32.58 cents?

A. Well, the fact is——

Q. Let me finish my question. At the west end you have a mileage of 79.94. You get a price there under your system, or we get a price under your system of 21.83 cents. Now, the same thing works out along the line where there are other measuring stations, because you have taken the demand of each measuring station there.

A. There are other factors besides the demand that would enter into it, sir, because that is one of the good points of this system of allocation, that in a way it recognizes a load factor. The consumer that makes a large demand for gas on days of maximum demand would pay a higher price for gas than a consumer who has an average rate of consumption throughout the year.

Q. Let us grant that for a moment now. Let us take Columbus, drawing some of its gas from Homer Station.

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[fol. 2786] Your figure then if they take a small amount, it is costing the company more to send it from Homer; that would give them a higher rate from Homer than from Wheeler, where they were taking a larger quantity, assuming for the moment that they were both the same distance away?

A. I would not say that, because the relationship between the amounts they took on the maximum day and the total they took for the year would be expressed in the rate as worked out on this plan.

Q. Let me go to something else. We will let that stand as your answer. The source of gas. Have you assumed in your allocation that the company, the Ohio Fuel Gas Company, gets its gas at certain places?

A. Indirectly, yes, not directly. We did not trace the gas from each individual point of origin to its final point of consumption. We are not able to do that from the records you have.

Q. Let me ask you if this statement of our engineers to me is correct. Our engineers advise me that your working papers on allocation indicate that you have assumed that the supplies of gas used by the respective major compressor stations came from certain fields?

A. That would enter into our——

Q. Is that correct?

A. It might be correct in one or two small instances; not as a general proposition.

Q. Is this correct? In your development of the demand mileage, you have used compressor stations as the source of supply, and in doing so, you have assigned various markets to each compressor station; is that correct?

A. We have our working papers, which indicate the source of the beginning of the mileage which we have used for each point of consumption.

Q. I don't know what you are talking about, but is my

4754

[fol. 2787] statement correct or incorrect?

A. It is partially correct, and it is partially incorrect, sir.

Q. Wherein is it not correct?

A. Read it again.

Mr. Turner: Read it, please.

(Question read.)

A. The statement is not correct in its entirety. We have used the major compressor stations as a beginning point for the measurement of the distance to be used in the demand miles factor.

Q. All right. Turn to your papers on Avon compressor station.

A. Avon?

Q. Yes, sir, A-v-o-n.

A. What papers? That is referred to in a considerable number of our papers.

Q. Right along the questions you have been asked here, I want to see what markets you have assigned to Avon and what markets you say are supplied from Avon. Look at page 4 of your working sheets and see if you haven't assigned Amherst to Avon?

A. Yes, sir.

Q. And the average maximum demand is 398 M. c. f.?

A. Yes, sir.

Q. All right. Look at page 4 and see if you have not assigned Berlin Heights to Avon, and the maximum demand is 79?

A. That is right.

Q. Now look at papge 5 and see if you have not assigned Birmingham to Avon and the maximum demand is 56?

A. That is right.

Q. Look at page 6 and see if you have not assigned Elyria to Avon and the maximum demand is 508 for one part of it and I will give you the other paprt as soon as you find that.

4755

[fol. 2788] A. Elyria?

Q. Elyria?

A. 508.

Q. One measuring station?

A. That is right.

Q. And 2,608 was another measuring station?

A. That is right.

—. Florence on the same page, average maximum demand, 12?

A. Yes.

Q. Lorain on page 7, 2,324?

A. That is right.

Q. Lorain on the same page, 1336?

A. That is right.

Q. South Amherst on page 10 in one case 40 and in the other case 21?

A. All right.

Q. Those two correct?

A. Yes, sir.

Q. Vermillion on the same page, 85?

A. That is right.

Q. Making a total of 7,727 m. c. f.?

A. Wait just a second. Before I would say we figured all of that gas as coming from there, you would have to check back these other working papers. Those notes on the side show me generally where that distance was begun from. The origin of each measurement is shown in the other papers, and I would have to go back through those

towns that you mention. We will go back again and see where it started from.

Q. Give me the page of your working papers to which you refer when you refer to some others.

A. Start me with your towns.

Q. Amherst was page 4 on your working papers. Give me your new page.

A. Amherst? You will find that on page 25 in the part marked distances.

Q. Also let us look at sheet 1 and see if you do not attribute it to Avon Station directly on sheet 1?

4756

[fol. 2789] A. I expect I have a right to explain my working papers.

Q. Yes.

A. These figures out here at the right—you notice there is no heading in the column—show me generally where that gas comes from. Now, the detail of where that gas comes from is shown on page 25 under distances.

Q. On page 25 it shows it comes from Avon?

A. Yes, sir.

Q. All right. Berlin Heights, what page is it? What page is Berlin Heights on?

A. Just a second. Page 31.

Q. 31?

A. Yes, sir. That is from Avon.

Q. All right. Birmingham is next.

A. Same page.

Q. Comes from Avon?

A. Yes. Just check off there Vermillion and Florence also.

Q. Florence and Vermillion from Avon?

A. Yes, sir.

Q. All right. The next is Elyria?

A. 25, page 25.

Q. Elyria is 25?

A. Yes, sir.

Q. Both Elyria, both measuring stations?

A. There are three of them there, I guess, aren't there?

Q. Two of them.

A. Two of them? You find that gas comes from York to Elyria. That is part of that first station. The other station comes from Avon to Elyria.

Q. You say part of the 508 comes from York?

A. Yes, sir. You will notice there are two distances there, one is 11,986 feet and the other is 71,751 feet.

Q. All right. The next one is Lorain.

A. All right, Lorain. That is on page 25.

Q. Page 25? Two Lorains?

A. Just a second. Here it is. That is Avon.

Q. Both of them?

A. Yes, sir.

4757

[fol. 2790] Q. Both of them Avon? All right. South Amherst is the next.

A. That is Avon.

Q. Both of them South Avon—I mean South Amherst, both from Avon?

A. They may pump it through, but we took the distance from Avon.

Q. We will take off all of that one Elyria that some of it, you say, comes from York. We will take the entire 508 off. That will give us 7,219 m. c. f., will it not?

A. I don't know, sir. Would you mind giving me the name of those towns? I did not take them down. I would like to have them for checking purposes.

Q. Amherst, pages 4 and 25; Berlin Heights pages 4 and 25.

A. Wait just a second.

Q. Birmingham, 5 and 31. If I said Berlin Heights 4 and 25, it is 4 and 31.

A. All right. Birmingham.

Q. 5 and 31. Elyria, 6 and 25. Florence 6. I haven't the other number of Florence. Lorain 7 and 25. South Amherst 10. I didn't get the other page for South Amherst.

A. I am just interested in names anyhow.

Q. And Vermillion?

A. What did you say they total up to?

Q. The total of them is 7,727 minus the 508 taken off for the little station in Elyria; leaving 7,219.

A. All right.

Q. Is that correct?

A. I don't know, sir. I wasn't checking your figures.

Q. I thought you were?

A. No, sir, I was just putting them down.

Q. Assume that 7,219 is the figure, how many times the maximum demand possible at Avon Station under maximum demand day conditions is that?

4758

[fol. 2791] A. It isn't any times that. It is slightly more than Phillip shows in his Exhibit 23, where he shows six or seven thousand.

Q. If that station should show a maximum capacity on a maximum day, for a maximum day demand, of 800, you would have to revise your figures somewhat, wouldn't you?

A. Yes, if that is correct, although we asked for the engine logs of these compressors on the maximum day; in order to check against those, we used Phillips' Exhibit No. 23 as being approximately correct.

Q. They gave you everything they could give you?

A. They couldn't tell how much gas was being put out on these maximum days of demand.

Q. Exactly so, but they can tell you the maximum capacity of that station.

A. Oh, it could be figured.

Q. Assuming it is 800, you have attributed 9.27 times the capacity of the station——

A. If 800 is correct; Exhibit 23 shows 6,578.

Q. You are getting the by-pass from York Station past Avon mixed up, aren't you?

A. No, sir, this shows 6,578 right in the square of Avon Station.

Q. In making your allocation of the Ohio Fuel Gas Company's property, have you assumed that the appraisal made by Ford, Bacon & Davis in the Ohio Fuel Gas Company case is identical in method with the appraisal made by Ford, Bacon & Davis in the United case? By this I attempt to ask whether the two appraisals are identical in their classification of property? In other words, has more of one class been put into one account in one case than in another?

4759

[fol. 2792] A. Of course the allocation had nothing to do with the appraisal. We made an allocation of the property in the appraisal without going into its correctness.

Q. Did counsel advise you that Mr. Antonelli had testified at page 1991 of this record that the Ohio Fuel Gas

Company had the practice to include in their transmission lines the gathering lines?

A. They did not and I did not read the record.

4771

[fol. 2793] Q. Yesterday you made the statement, as I recall it, that with one exception there were no expenses in the United Fuel Company allocation where they went back to the compressor station; is that correct?

A. That is correct, the 1928 allocation.

Q. Now I hand you what have been marked as Company Exhibit No. 166a to 166j, both inclusive, and ask you whether or not those are the papers that you furnished us as your working papers on the West Virginia allocation made in this case?

A. Yes, sir, they appear to be.

Q. Well, examine them and see if they are not in your own handwriting?

A. No, sir, they are not in my handwriting.

Q. But you furnished them to us?

A. I furnished you some papers and these appear to be the papers.

Q. All right, check them over and see whether they are yours or not?

A. I say they appear to be the same papers.

Q. Where did you get this figure 27 opposite the City of Charleston in column 2 of the figures on 166-a?

A. That is the distance, the average distance, the gas is transmitted to Charleston.

Mr. Turner: Read the question, please.

(Question read.)

Commissioner Geiger: He asked you where you got it and you stated what it was; where did you get it?

4772

[fol. 2794] The Witness: Why, they came from the appraisals; we took the distance in the United Fuel Gas case direct from the appraisals listing pipe line distances; there was no real serious argument in that case on distance.

By Mr. Turner:

Q. Whose figures are they, yours or somebody's else?

A. I did not measure the distance between the two points. I took the distance of the pipe line out of the appraisal.

Mr. Turner: Read the question.

Mr. Davies: He said he got it out of the appraisement.

Mr. Turner: You do not need to answer for him.

Mr. Davies: I am not going to answer for him. He can take care of himself but I want you to be fair with him.

Mr. Turner: If he will answer the question he will be fair to himself. Read the question.

(Question read.)

Commissioner Geiger: Can't you answer that?

The Witness: Yes; they are my figures.

By Mr. Turner:

Q. All right.

A. I say mine; they got into the case by me giving them to Mr. Carter and he testified to them but we took them from the appraisals in the case. I am just getting the figures out here now.

Commissioner Geiger: That won't be necessary.

By Mr. Turner:

Q. What is the 27 made up from if you gave them to Mr. Carter?

A. I am just ready to go into that matter, sir.

Commissioner Geiger: Do you doubt the figures, Mr. Turner?

Mr. Turner: I doubt that he knows anything about them; I may be mistaken.

4773

[fol. 2795] Commissioner Geiger: What is the difference whether he knows anything about them or not if the figures are correct?

Mr. Turner: Well, I don't want to explain to the witness; I am cross-examining him, and if you will be patient with me for a few minutes, as you have been patient with the other side, we will get at it.

Commissioner Geiger: All right; go ahead.

The Witness: Charleston is served through Lines C and D from Walgrove compressor station. The length of Line D is 124,645 feet, or approximately 25 miles; and there is another little hook on the end of it that I do not have the

length of it that made up the difference between that and 27 miles.

Q. That was the distance of five miles to the field, wasn't it?

A. No, sir, there could not be a difference of five miles between 25 and 27.

Q. How far is Walgrove from Charleston?

A. By what method?

Q. By their pipe line?

A. I just told you that; Line D is 124,645 feet long.

Q. I am talking about—I want to get the compressor station; that is my fault—how far is the compressor station from Charleston?

A. 27 miles by the line of travel of the gas.

Q. 22 miles, isn't it?

A. No, sir; it might be 22 miles by the short line but in making that allocation we took the long line, and if you will refer to this Exhibit No. 160 you will see that by way of Line D that it is not a direct route, and we took the longest distance on Charleston, which was 27 miles.

4774

[fol. 2796] Q. I ask you again to tell us where you got those figures?

A. I am telling you.

Q. You have not told us yet.

Commissioner Geiger: What was the source of your information as to that measurement?

The Witness: The source of information as to that measurement was Ford, Bacon & Davis' appraisal in the United Fuel Gas case, which showed the length of the various transmission lines, just as it does in this case.

Commissioner Geiger: Otherwise you have no information as to that distance?

The Witness: We did not measure it, no, sir.

Commissioner Geiger: All right; that is sufficient.

Mr. Turner: Your Honor don't see what I am after.

Commissioner Geiger: Well, we want to see what you are after.

Mr. Turner: All right.

By Mr. Turner:

Q. Take the next one, Huntington; you have Cobb Station—I am looking at the wrong data; take the next one,

the City of Huntington, where do you get the 65 miles; how is that made up; the same way?

A. All those distances were made up in the same way.

Q. By whom?

A. By me; I gave them to Mr. Carter and we probably made some corrections in them at the conference I spoke of yesterday.

Q. Did you attend the conference?

A. I certainly did.

Q. What kind of a conference and who else were present?

A. Mr. Carter, Mr. Hightower and Mr. Hitchman here and——

4775

[fol. 2797] Q. You were there at the final conference, were you?

A. Yes, sir, as far as I know, sir.

Q. All right. I want to ask you the question if that 65 miles does not embrace part of the line back of Cobb Station?

A. The 65 miles has nothing to do with Cobb Station, sir.

Q. Sir?

A. The 65 miles has nothing to do with Cobb Station.

Q. Where is it from then?

A. From Lewis.

Q. You are sure of that, are you?

A. I am sure it is not Cobb, sir.

Q. You are sure it is not Cobb?

A. Yes, sir.

Q. Where is it from?

A. It is from Lewis.

Q. How many miles from the Lewis compressor station to Huntington?

A. I haven't got that distance exactly, sir. Line A, which is a line that runs from Lewis to Huntington, its total length is 74.34 miles. Now we made some adjustment off of that and I do not recollect just what it was.

Q. All right; where did you get the next figure, Williamson—wait a minute—yes, Williamson?

A. All these figures were made in the same manner.

Q. I did not ask you that; I asked you where you got it?

A. I would have to have a map showing the towns on

here because I do not recollect the exact location of Williamson.

Q. Why, an engineer usually has working papers that make up these figures that are composites, doesn't he?

A. Yes, sir, and I had them at that time. This case was five years ago—excuse me, three years ago.

Q. Where did you get these figures—what year—that you are using now?

A. They were of the year—as of December 31st, 1928, 4776 [fol. 2798] and I did that work in the summer and fall of 1929.

Q. When did you get these figures that have been used here; when did you obtain them?

A. Some of them were obtained at that time and others were obtained at the conference I spoke of.

Q. None of them obtained this year?

A. Yes, I had some correspondence with Mr. Carter this year.

Q. And you got them from Carter, didn't you?

A. I got——

Q. You got every one from Carter?

A. No, I would not say that.

Q. And you can't tell the breakdown of a single one, can you?

A. Yes, sir.

Q. Break one down; you got every one of them from Carter, and you know it, didn't you?

Mr. Davies: I object to that sort of cross-examination.

Mr. Turner: Well, this is cross-examination.

Commissioner Geiger: Gentlemen, Gentlemen——

Mr. Turner: He didn't get them until I asked this year; that gave him the cue when he got "this year."

Commissioner Geiger: Gentlemen, it is impossible for Mr. Okey to get this matter with two or three of you talking at one time.

Q. Where did you get these mileage figures?

A. As I previously testified, we made up these mileages for Carter and made up the items for Carter and furnished him with all of them except the distances that he used out here in Ohio; they were ordered and revised at a confer-

ence in Charleston. I had some notes—not a great many—

4777

[fol. 2799] on what happened at that conference, and in order that I might be perfectly correct I wrote to Carter this year for the distances and figures he used as a check.

Q. Can you break any one of them down?

A. I have broken several of them down.

Q. I haven't heard you; you haven't checked a single figure and broke it down?

A. I think I checked the Charleston very well.

Q. You are satisfied with it?

A. Yes, sir.

Q. How far is Walgrove to Charleston?

A. By what way?

Q. By any way at all, from the compressor station?

A. By Line D it would be approximately 27 miles.

Q. All right; you say there is nothing in that figure 27 which takes in any pipe line back of the Walgrove compressor station?

A. Yes, sir.

Q. That is your statement?

A. Yes, sir.

Q. All right; now you say as to the Huntington figures of 65 miles, you say that is the Lewis station?

A. Yes, sir.

Q. And you say there is nothing in there that takes into consideration any pipe line back of the station?

A. That is right.

Q. The compressor station?

A. That is right.

Q. Now, in Williamson City, of 16 miles, you say there is nothing in that that takes into consideration anything back of the compressor station at Kermit?

A. Certainly not; if you will refer to Company's Exhibit No. 160 you will see Williamson located on Tug River and is plainly served by Line — from Kermit, a six inch line; the length of Line M-18 is 82 feet, a distance of 15.69 miles.

4778

[fol. 2800] Q. Is that from the Kermit compressor station to Williamson?

A. Yes, sir.

Q. I will ask you if the figure 16 does not contain 1.75 from Kermit to the field?

A. No, sir.

Q. All right; now take your next one, 48, there; the figure 48 is made up—I will ask you if the figure 48 does not contain a part of the field line back of Cobb Station?

A. I could not break that figure down for you, sir, without some other working papers; it is my recollection that that is a composite delivery.

Q. It is a composite delivery?

A. That is my recollection of it.

Q. All right; now the next figure, of 46, is that a composite?

A. The Ohio Fuel Gas Company?

Q. Yes.

A. No, sir, that is a line made up of the distance from Spencer to the Ohio River and a portion of the distance between Spencer and Lewis. I could calculate that.

Q. Any part of it between Lewis and the field?

A. No, sir.

Q. You are sure of that, are you?

A. Yes, sir.

Q. All right; and take the next figure, 40; any of that back of Cobb Station at all?

A. I would have to have those sheets on that to calculate that for you, sir.

Q. What sheets do you want?

A. My own sheets showing where the exact points of any of those deliver-s are; I do not have them here.

Q. I thought you gave us your work sheets on West Virginia?

A. I mean the work sheets I used in the United Fuel 4779

[fol. 2801] case showing the location of all meters.

Q. We asked you for all the work sheets showing how you got at your West Virginia allocation in this case.

A. You have got them.

Q. No, we have not; you cannot break them down right here.

A. Some of them I can, because I can remember just what happened there; the others I would have to have my work sheets in the United Fuel case, which I do not have. I brought everything else in the United Fuel case that I thought we would be apt to need.

Q. I want your work sheets on which you get this demand mileage in your allocation here in the West Virginia——

A. Do you mean the actual length of the lines?

Q. I want you to give me your work sheets through which you get your demand mileage?

A. The only thing I can say is that I can make them up and give them to you; I cannot give them to you here.

Q. How could you come to the final conclusion unless you made them up previously?

A. They have been made up previously.

Q. Not for this case?

A. No, not for this case.

Q. We want to know how you got at the figures in this case and we ask you for your work sheets here in this case?

A. And I gave them to you.

Q. Well, we cannot break these distances down from these figures?

A. I cannot break them down except in the instances I have testified to where I happened to remember the exact conditions.

Q. Well, we believe that each and every one of them

4780

[fol. 2802] go back of the compressor stations and that is what I am trying to develop from you, if you know that, and you say "No, with one exception?"

A. Yes.

Q. All right; no use to pursue that any further. How did you arrive at the daily amount of gas used for peak demands on the small towns in West Virginia supplied by The United Fuel Gas Company on which daily readings were not available?

A. There were certain towns which had no citygate meters and they were not considered except as unmetered sales; in other words, they were not considered as having any meters there; they were taken into consideration under unmetered.

Q. They were not estimated at all, were they?

A. Some of them were.

Q. Which ones of them were?

A. Where you see the amounts in there for unmetered sales; some were not; in other words, I think in the West Virginia case in that respect that the protesting cities had a little the best of it in that there were certain sales in West Virginia which were not considered in the allocation to the

West Virginia business—small sales where they had no city gate.

Q. I would like to know the method by which you arrived at the figure here on unmetered business?

A. I do not have anything here with me that would show that beyond this sheet here as you have it.

Q. Well, that sheet shows nothing, so far as how you arrived at it is concerned?

A. Well, no.

Q. Mr. Blundon, isn't it true that you had nothing to do with the estimating of the type of demand used in arriving at the percentages in Mr. Carter's exhibits on demand mile-

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[fol. 2803] age on the unmetered?

A. The unmetered figures may have been arrived at at that conference that I speak of. We made all of Carter's demands for him and gave him all the distances; now that unmetered may have been arrived at at that conference.

Mr. Turner: I would like to have the question read.

Q. I asked whether you had anything to do with estimating the demands on unmetered gas?

A. I did, in two ways; first, in giving Mr. Carter the number of meters and discussing with him the probable demand and class of the used of the meters which were without the city gates.

Q. I am asking for the unmetered gas.

A. I am talking about the gas that is considered here as unmetered, which means not passing through a city gate meter; it is still metered to the consumer and he pays for it.

Q. How did you arrive at the peak?

A. That was arrived at at the conference I speak of.

Q. How did you arrive at it?

A. It was arrived at at the conference I speak of where all of us arrived at it: no single individual arrived at it.

Q. Were you at the conference?

A. Yes.

Q. On the demand mileage basis as reflected in Carter's exhibits 32, 33 and 33-A revised—the revised Carter exhibits—I will ask you to state whether any consideration was given to gas purchased meter measurements at any point in the system such as you have used in your work here in the Ohio Fuel Gas Company allocation?

A. No consideration was given to gas purchased meter measurements in the United Fuel allocation because we had available daily compressor logs which showed and checked the amount of gas, the direction in which it was flowing

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[fol. 2804] throughout the system; we have those daily logs by days for all the compressing stations of the United Fuel Gas Company for the year 1928. We requested this information of Mr. Phillips in this case and were advised that the daily engine logs were not available for either 1929 or 1930, that they had been destroyed. This information was first requested from Mr. Phillips and he advised us that we would have to get your permission in order to get it. We wrote to Mr. Davies, the City Solicitor, who then wrote to you, I believe, and after that, why, Mr. Phillips told us that this information was destroyed but that monthly summaries were available.

Q. Now you are testifying to your own knowledge or——

A. For that reason it was necessary to get other information which would tend to show the amount of gas entering the system at various points.

Q. What was the data of the letter to which you refer, of Mr. Davies having written me, that you did not get any information on?

A. I wrote Mr. Davies——

Q. That is not the question; answer my question once, please.

A. Well, I say I wrote Mr. Davies on July 24th.

Q. I do not care anything about that; I want to know the date of Mr. Davies' letter to you?

A. It would be July 25th—or Mr. Butler; I wrote to Mr. Davies on the 24th.

Q. Oh, all right. Did you determine the peaks from the compressor logs in the United Fuel case?

A. No, sir, but they let me know the way the gas was flowing.

Q. It was always flowing the same way in West Virginia, wasn't it?

A. No, sir.

Q. Where was the exception?

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[fol. 2805] A. Well, we have one compressor station——

Q. I am talking about 1928 now.

A. I am talking about that too. In 1928 Nitro Station, marked here "Kanawha", which is located on the cross-over between Lines A and S, pumped gas in both directions.

Q. To what towns?

A. That is located on the cross-over between A and S; A is a line from Lewis Station to Huntington, and Line S, with its connection with the Huntington Gas Development Company at Bald's Gap, is a line between Kenova and Cobb Station.

Q. Which way would Nitro pump ordinarily, or send the gas ordinarily?

A. Ordinarily the flow of gas there is easterly, but Nitro can be used——

Q. To where?

A. Towards Cobb.

Q. Towards Cobb; all right; you think it goes to Cobb?

A. Yes, sir.

Q. When?

A. How?

Q. Most of the time?

A. Part of the time, and other times it goes the other way; that is the point I make; that is the very function of Nitro Station, to put gas either way there.

Q. Now, Mr. Blundon, one of those lines runs east and the other runs west, doesn't it, and Nitro does not put it in two directions at all, in the way that we have been talking about in the Ohio Fuel Gas Company case, does it? In other words, the same pipe line is not used—the same piece of pipe, to get down to it, with the exception of the little stub from Nitro to Kanawha, is not used in different directions?

A. It cannot be used in different directions at the same

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[fol. 2806] time, no, sir, but it is used in different directions at different times.

Q. Now there is a little piece from Nitro over to this first line, isn't there?

A. Nitro is connected into both lines, sir.

Q. Now, down to the line that runs from Walgrove to Kenova, and it is also connected from the line that runs from Lewis to Huntington, isn't it?

A. Yes, sir.

Q. All right, sir; now I want to know if Nitro ever puts any gas into the line between Kanawka or Lock 7 and Kenova in other than a westerly direction?

A. In other than a westerly direction?

Q. Yes, in other than a westerly direction?

A. I would not like to testify as to that because I am not sure, but I am sure that Nitro is used to boost gas in either direction.

Q. Exactly, but that is not what I am trying to get at, and differentiate from the situation we have in Ohio.

A. I will put it this way; that the Bald's Gap measuring station both puts gas into Line S west of Bald's Gap and takes gas out of that same line at different times; in other words, the gas there at different times flows in different directions.

Q. I am talking about Nitro and that was the illustration you gave me; does Nitro put any gas into the line between the connection here immediately north of Nitro and Huntington which flows in other than a westerly direction?

A. I would not like to answer that question as to a particular scheme of operation. I will say that Nitro is used to put gas in different directions at different times.

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[fol. 2807] Q. Through the same piece of pipe?

A. At different times through the same piece of pipe.

Q. Just describe——

A. Well, I made one point that Line S, which is connected on there, or can be connected at Nitro, that the gas flows in different directions at different times; at some times the measurements at Bald's Gap are in different directions.

Q. Now we are discussing 1928, are we?

A. Yes, sir.

4863

[fol. 2808] E. L. CARTER further testified:

Q. Have you made a study of the operating conditions of The Ohio Fuel Gas Company?

A. I have.

Q. Were you asked to make an allocation of The Ohio Fuel Gas Company's property on the same basis as an allocation was made in The United Fuel Gas Case in West Virginia?

A. I was.

Q. Have you seen and studied the maps and general plan and system of the Ohio Fuel Gas Company?

A. I have.

Q. Have you seen and studied the plans of other natural gas systems?

A. I have.

Q. Have you made allocation studies of other natural gas systems?

A. I have.

Q. When and where?

A. I have made allocations of other natural gas systems in Indiana, Kentucky and West Virginia covering the last ten years at different times.

Q. About how many companies would you say?

A. Oh, natural gas and combination natural and artificial gas, approximately ten I would say in round numbers.

4864

[fol. 2809] Q. How does the system of The Ohio Fuel Gas Company compare with other systems?

A. The system of The Ohio Fuel Gas Company is much more complicated and interconnected than any of the other systems.

Commissioner Geiger: Than what?

The Witness: Than any of the other systems.

Commissioner Geiger: That you have enumerated?

The Witness: That I have enumerated, yes, sir.

By Mr. Turner:

Q. What method of allocation have you used in the past?

A. I have used, I think, every known method of allocation at some time or other on various problems.

Q. Did you make an allocation in The Central Kentucky Gas Company case at Lexington?

A. I did.

Q. For whom did you appear?

A. For the City of Lexington, Kentucky.

Q. What was the purpose of that allocation?

A. To determine the proper proportion of the property to allocate to Lexington for rate making purposes.

Q. Did you make an allocation in the United Case in West Virginia?

A. I did.

Q. For whom did you appear?

A. For the citites of Huntington and Charleston.

Q. What was the purpose of the allocation in The United Fuel Gas Case?

A. The purpose there was to allocate between the State business and the out-state business.

Q. Can the same methods be used in The Ohio Fuel Gas Company as were used in The United Fuel Gas Company case?

A. They cannot.

Q. Why not?

A. Because your systems are not the same, and because your Ohio Fuel Gas System is so interconnected and in-

4865

[fol. 2809a] terwoven that it is impossible to get information such as was used in West Virginia, and the allocation in West Virginia was for an entirely different purpose than the allocation in Ohio. The gases are so intermingled, the systems are so interconnected that it is not possible to get accurate information.

Q. What would be necessary to get the information upon which to make a demand mileage allocation, assuming that the property were otherwise capable of being so allocated?

A. It would be necessary to have exact metering of all gases simultaneously; also the accurate distances that those gases travel.

Q. In order to get that what installations would have to be made and what supervision or attention would have to be given to it?

A. Installation would have to be made in innumerable numbers of cases. I do not believe even then it would be possible in the Ohio case to get sufficient information to properly allocate on a demand mileage basis.

Q. Why is that?

A. Because the system is so interconnected and the gases are so mingled in the system, that it would not be possible to properly measure or tag the different volumes of gas and make any accurate information for allocation purposes.

Q. Does gas flow more than one way in the same pipe in The Ohio Fuel Gas Company's system?

A. At different times it does, yes, sir.

Q. Well, may it on the same day?

A. It may on the same day or at different hours it may change during the day.

Q. I wish you would explain the methods used in the West Virginia case.

A. In West Virginia attempt was made, and allocation
4866
[fol. 2810] figures were prepared, to allocate between the wholesale and retail business and the business going outside of the state. Measurements were available for all major consumptions. Distances of travel were obtained for all major consumptions. The direction of travel was substantially in one direction at all times. Allocation figures were worked up and applied to the appraisals and to the operating expenses to allocate between the State business and the out-State business. No attempt was made to allocate between City and City.

Q. Have you studied Mr. Blundon's working papers on The Ohio Fuel Gas Company allocation?

A. I have studied a photostatic copy of his working papers, yes, sir.

Q. What have you to say as to the method pursued by Mr. Blundon in that case as compared with the method which you pursued in the West Virginia case?

A. The methods are entirely different. There are some similarities but the basic figures are entirely different, because it was possible in the West Virginia case to get actual demands and actual measurements, and that is not possible in the Ohio case.

Q. What about Mr. Blundon's adjustments or lack of adjustments in respect of industrial sales in individual cases?

A. In some cases of sales adjustments were made to attempt to estimate a maximum demand, and in other cases adjustments were not made, which shows, in my opinion, an inconsistency.

Q. Were you assisted in any way in the West Virginia case, and if so, by whom?

A. I was assisted in this way; I secured originally considerable information from Mr. Selman who is a member
4867
[fol. 2811] of the staff of Arthur Anderson & Company in Chicago. I went to Charleston and attempted to get certain basic information to verify some of the figures that I had gotten from Mr. Selman, and to get additional figures and facts. I was not able to get that information directly from the Company for various reasons, but with the consent of the attorneys for the City it was agreed that Mr.

Blundon secure for me certain information wliich I later got from him. That basic information was used. The allocations were computed in my office in Indianapolis and applied, and exhibits prepared.

I was assisted in my own office by assistants, there, and assisted in some of the basic information by Mr. Blundon and from Mr. Selman. Later there was considerable assistance given from the Company in making a number of corrections in the original basic figures behind all allocations.

Q. As to the mileage used, where did you get the mileage that appears in your final exhibit 33-A in the United Case?

A. The original mileage—may I explain that rather at length?

Q. Yes.

A. The original mileage was obtained from information that I got from Mr. Selman, from Arthur Anderson & Company, that was later verified in going over the figures with Mr. Blundon and some of his assistants, insofar as they could verify it. Later on, in the final figures, the final adjustments and corrections were gotten from the office of the Company, The United Fuel Gas Company at Charleston, West Virginia, working with Mr. Hitchman and other members of the staff of the United Fuel Gas Company.

[fol. 2812] Q. I hand you what has been marked as Company Exhibit No. 167 and ask you to state briefly what that shows?

4868

[fol. 2813] A. That shows in general the main transmission lines of The United Fuel Gas Company as I recall them.

Q. Does it show the distances used in making your allocation?

A. It shows no distances on the map.

Q. Well, but I mean does it indicate any parts of the system that were used in making your allocation?

A. Yes, sir, I would say that it does.

Q. What was the total mileage used in the case of Charleston; have you your data there?

A. Yes, sir, the mileage used in the allocation data to the city of Charleston or for the city of Charleston, allocation computations was 27 miles.

Q. Do you know how that was made up?

A. It was made up, the original 27 miles I got from Mr. Selman who had gotten that information in turn from Mr. Hitchman, and it is made up of two figures, a distance from Clendennin to Charleston of 22 miles, and behind the Clendennin field approximately five miles, making 27 miles.

Q. Now take Huntington, the figure of 65 miles there.

A. Huntington was made up, a total distance of 65 miles.

Q. How was that made up, if you know?

A. I think the same situation, so far as the original figure in that case is concerned, as in the Charleston case, and that can be broken down into two figures, from Cobb Station to Huntington approximately 64¼ miles, and behind the Cobb Station to the field was ¾ of a mile.

[fol. 2814] Q. Take the Williamson figure?

A. The Williamson figure, I used a distance in the computations of 16 miles.

Q. And how was that broken down; can you break that down?

A. I do not believe I can right at the moment without checking back on my sheets, Mr. Turner. That was broken down into two figures, however, which I can give you.

Q. Well, what did it consist of?

A. It consisted of Kermit to Williamson of 14¼ miles, and from Kermit to the Field of 1¾ miles, which makes a total of 16 miles. The original figure there again was obtained, as I recall, from Mr. Selman, which was later on checked and verified by checking with the company, and that breaks down into those two parts.

Q. Now The Ohio Fuel Gas Company, Ravenswood, what was your figure on that?

A. The final figure used was a figure of 46 miles with an additional figure of 65 miles to the next point of compression, or delivery to the next point of compression.

Q. And that was Sugar Grove?

A. Yes, sir.

Q. How was the 46 miles broken down, if you know?

A. I can be broken down; the same explanation as to the original source of figures applies as applies to Charleston, and that can be broken down into three parts, distance of Ravenswood to Spencer, or the State Line, of 24.96 miles, and Spencer to Lewis Station of 16.55 miles, and Lewis to the field of 4.49 miles, which makes a total of 46 miles.

Q. Now take The Hope Natural Gas Company, the figure of 40 miles?

—. The Hope Natural Gas Company, the original figure was 40 miles; that is, the final agreed figure was 40 miles, plus an additional 15 miles to the next point of compres-

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[fol. 2815] sion or delivery, and the same general explanation applied to that, and the breakdown there can be broken down in this general way, from Cobb Station to Cedarville, a distance of 39.25 miles, and from Cobb Station to the field of .75 miles, which makes up the total of 40 miles.

Q. Exclusive of what you added to the next compressor station?

A. Yes, sir; that was a figure that the company did not agree should be used although they agreed, I think, that the dimension was substantially correct, as I recall.

Q. Now the Pittsburgh & West Virginia Gas Company?

A. The Pittsburgh & West Virginia Gas Company, the same figure exactly as in the Hope, and the same breakdown as in the Hope, except the point to the next compression was slightly different.

Q. The Manufacturers Light & Heat Company?

A. The Manufacturers Light & Heat Company, the final adjusted mileage was 10 miles.

Q. And what was that?

A. And that figures from Spencer to the field.

Q. That figures from the compressor station back to the field, does it not?

A. Yes, sir.

Q. The delivery is made where?

A. The delivery is made at Spencer; the line belongs to the other company beyond Spencer; as I recall, the metering point is at a line outside of Spencer.

Q. How about the Central Kentucky Natural Gas Company?

A. The Central Kentucky Natural Gas Company, the final figure used was 10 miles for the point inside of West Virginia, and then the 110 miles additional distance to Lexington.

Q. Was there any split-up for Inez?

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[fol. 2816] A. Yes, the distance from Kermit to Inez 8.25 miles and the 1.75 additional miles would make Inez back to the field of that amount.

Q. The same applies to The Louisville Gas & Electric delivery, does it not?

A. Yes, sir, that is exactly the same.

4872

[fol. 2817] By Mr. Turner:

Q. Is it possible at Nitro to send gas in two directions, or in more than one direction, or do you know the operating conditions?

A. It has been a couple of years since I was in that; I would hesitate to say; it would be purely memory.

Q. Well, what is your memory on that?

A. That is can be pumped either into the line designated

4873

[fol. 2818] as "A" Line, or into a line designated as "S" Line. That is my recollection, but I would not state that as a fact, however.

Q. I will ask you if it ever pumps into the "A" Line south of the point that the line from Nitro joins—or north from the point that the line joins "A" other than in a westerly direction?

A. I do not recall; I do not believe I can answer that question.

Q. Well, in other words, I want to develop whether or not there is a flow back and forth in any one of these pipes?

A. As I recall the plan of operation, the direction of flow is almost uniformly in one direction and is not back and forth except upon very rare occasions.

Commissioner Geiger: Well, is there a considerable portion of the gas that flows through these two lines that you have indicated on Company Exhibit No. 167 that goes to eastern consumers, in eastern territory rather than Ohio?

A. I do not know whether I can answer your question specifically or not because the allocation in West Virginia was to determine whether or not it was wholesale rather than to where it eventually went. It is a question of volume and direction of flow rather than where the ultimate consumer was.

Mr. Turner: We can answer your question by another witness if you want it answered.

Commisisoner Geiger: All right.

And thereupon the map above referred to was admitted in evidence on behalf of The Columbus Gas & Fuel Com-

pany and is herewith submitted and marked Company Exhibit No. 167.

4874

[fol. 2819] By Mr. Turner:

Q. Mr. Carter, I want to call your attention again to the working papers of Mr. Blundon; what, if any, comment have you to make on his use in getting and obtaining demands of five percent of the monthly sales of consumption, or whatever it was?

A. That, in my opinion, does not tell the demands—maximum demands, at all, because no two communities are exactly alike, and in order to properly use demand mileage you must have the exact figure, and not an estimated figure.

Q. What have you to say of his multiplication of one day to seven, or seven days or less by 1⅙?

A. It does not follow at all that that is the correct factor to use.

Q. Have you tested some of Mr. Blundon's figures to find out how it worked?

A. I have. I made some computations from actual measurements.

Assuming the reading for Springfield, which was taken just because we happened to have that figure, on the 13th of January, 1929, which corresponds to one of the figures that Mr. Blundon used in his allocation computation, the daily figure for Springfield was 8,556; to take and show the relation of that figure to a seven-day figure, figures were taken on both sides of that day, just as a matter of convenience, arbitrarily, from the 9th to the 15th; the average of the daily readings for Springfield for the seven days, the 9th to the 15th of January, 1929, inclusive, gives and average of 7,694. If that is multiplied by 1⅙, as I understand Mr. Blundon did do in his working sheets, we get an estimated—or get a result of 8,976. 8,976, according to the method used by Mr. Blundon, should give the demand on the 13th, but it does not do it by a considerable

4875

[fol. 2820] amount. The demand on the 13th was 8,556, or a considerable difference.

To further show what happens when you add another day or two and change from his assumptions, if you add

two more days on a seven-day period, with this same situation—add the 16th and the 17th and obtain a nine-day average and multiply that by 31 to get the estimated for the month, and take five percent of that, your resultant computations are—or give you a figure of 11,662, where the actual measured for the 13th, which was the day taken, was 8,556, which shows that there is a discrepancy of over 3,000, or approximately 40 percent, between the average figure computed as Mr. Blundon computed it and the actual figure as measured, which shows that it is not a true figure even though you should adopt that kind of a method, and that situation of course would not obtain in some other town.

Q. What is the effect upon the division of the property in this allocation, to give Columbus a higher or a lower percentage?

A. I do not quite follow your question, Mr. Turner.

Q. Well, I want to know whether or not the method used reflected—in the way it was used—reflected an advantage or disadvantage to Columbus in the matter of allocation?

A. In my opinion, it penalizes Columbus, and works against a fair allocation to Columbus.

Commissioner Geiger: Just what do you mean by that; do you mean by that that the property allocated to Columbus by that method would be less than the property actually used for Columbus?

The Witness: Yes, sir.

4876

[fol. 2821] Commissioner Bricker: He said a moment ago that it penalizes Columbus as a matter of rate, is that what you mean?

The Witness: Yes, sir.

Commissioner Bricker: Your two answers are inconsistent.

The Witness: The difference would be that you are allocating—if I may explain my answer—you would be allocating the Ohio Fuel Gas Company's property to Columbus on a smaller portion than should be allocated to Columbus; in other words——

Commissioner Bricker: That would not penalize Columbus as a matter of rate.

Commissioner Geiger: It would penalize the Columbus company.

The Witness: It would make a less rate for the Columbus gate than should be made.

Commissioner Geiger: That is the difficulty about using the word "penalize"; we don't know how you are talking about it.

[fol. 2822] Mr. Turner: We have Columbus and the Columbus Company here.

Commissioner Geiger: All right. Now you have criticised that as being inaccurate; what is the accurate way to do it, or are you coming to that?

The Witness: The only way to do that in a situation of this kind is on a sales and consumption basis.

Commissioner Geiger: Do you mean by that to take the whole system as a unit and ascertain how much gas is used by each consumer within that system?

The Witness: Each group in that section, yes, sir.

4877

[fol. 2823] Commissioner Geiger: Well, if you are going to make your group a single city, then you would say as to how much gas was consumed by each city?

The Witness: That is right.

Commissioner Geiger: If you were handling Dayton, Springfield, Columbus, Portsmouth and Toledo, it would be in proportion to the amount of gas consumed by each, is that right?

The Witness: Yes, sir.

Commissioner Geiger: And why do you take this single day? Couldn't that be done by a month or a year? Don't you know how much is consumed by each in a year?

The Witness: I took the 13th simply because that was the figure Mr. Blundon used and I was simply attempting to show in my statement here that that did not give the factor that he had applied in his computation.

Commissioner Geiger: Well, if you take a certain day then you must assume that the climatic condition over the entire district of the State of Ohio is uniform for that day and that it does not happen to be colder in Columbus than in Dayton, is that rght?

The Wtness: Yes, sir, and that is why you cannot use a demand mileage—or one of the reasons why you cannot—in fairness.

Commissioner Geiger: But would you be able to ascertain reasonably accurately, if you took a whole year?

The Witness: If you took the consumption of the various communities for the entire system, your inequalities in temperature and days would wipe itself out and that is the only fair way to make an allocation of the entire property in

4878

[fol. 2824] my opinion.

Commissioner Geiger: Well, that is much simpler than the other, isn't it? You would do away with your demand mileage and all that?

The Witness: Yes, it is simpler and it fits the facts as we find them.

Commissioner Geiger: What is this demand mileage; what do you mean by that—briefly—not too long?

The Witness: I will try to make it brief. You have a certain consumption and that consumption travels some distance, and the demand mileage is simply the consumption or demand times the mileage.

Commissioner Geiger: And that mileage does not vary; that is fixed; the demand does vary by each day or each particular situation under which the gas is consumed?

The Witness: That is not quite correct, Your Honor. The demand varies and the distance varies, and that is one of the main reasons why you cannot use a demand mileage method in this particular system.

Commissioner Geiger: Well, now you say the distance varies; of course, the length of the pipe does not vary?

The Witness: No, sir, it does not.

Commissioner Geiger: But the distance travelled by the gas in order to get it from the place of production to the place of consumption does vary?

The Witness: Yes, sir.

Commissioner Geiger: And that varies each day?

The Witness: Yes, or it may vary an hour in the day, and the gas delivered is mingled and part may come from

4879

[fol. 2825] one point and part from another.

Commissioner Geiger: Then your general conclusion *is* to base an allocation upon demand mileage is more or less of a guess as to a great many elements which are not fixed or unvarying?